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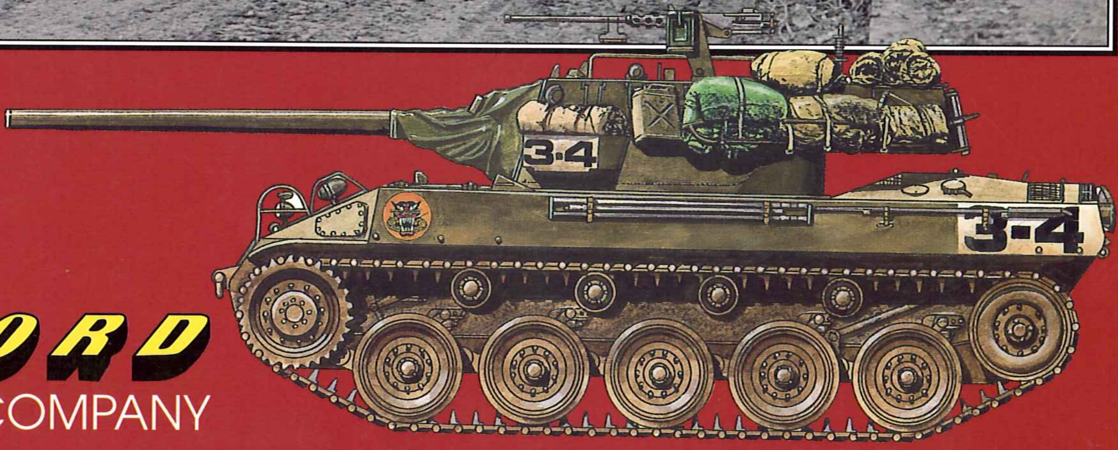
ARMOR AT WAR SERIES

U. S. TANK DESTROYERS IN COMBAT 1941-1945

Steven J. Zaloga



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When war broke out in Europe in 1939, the US Army was ill-prepared and woefully ill-equipped. Although the defeat of the small Polish Army in 1939 was not unexpected, the defeat of both France and Britain in the May-June 1940 Blitzkrieg campaign was shocking to the leadership of the US Army. The new German tactics forced the US Army to consider how it would face a similar onslaught. It was already organizing its own armored divisions to parallel the German *panzer* divisions. But these were envisioned as offensive units designed to carry out exploitation missions after the enemy's lines had been broken. American theoreticians saw a need for improved defensive weapons to deal with the threat of the *panzer* attack. Experimental "Tank Attacker" formations were created and employed in the November 1941 war games in the Carolinas with very promising results. By late 1941, there were plans to activate one anti-tank battalion per division, plus 165 additional battalions either under a central army or GHQ (General Headquarters) control. On 27 November 1941, the War Department authorized the formation of the first 53 anti-tank battalions, now dubbed "Tank Destroyers" for psychological reasons. To further accent the importance placed on the new units, they were withdrawn from the control of their infantry and armored divisions and placed under special GHQ control, the first step to becoming a separate arm of service like the infantry, artillery or tanks.

The Tank Destroyers were the favored arm of the new Army Ground Forces (formerly GHQ) headed by Maj.Gen. Lesley McNair. McNair opposed the use of tanks to defend against enemy tanks, preferring to use cheaper anti-tank guns. His idea was to husband the tank destroyers behind the lines, and aggressively send them forward when enemy tanks threatened to breakthrough. The aggressive orientation of the Tank Destroyer force was embodied in their slogan "Seek-Strike-Destroy". The aggressive tactics stressed by McNair led the Tank Destroyer advocates to pay more attention to giving anti-tank guns mobility. Towed anti-tank guns might be acceptable for static defense such as in infantry anti-tank companies, but were not well suited to the bold, mobile tactics being discussed. McNair's position was not universally supported. The chief of the infantry branch, Maj.Gen. George Lynch, argued that the best anti-tank defense was an aggressive employment of friendly armored forces.

US Army Ordnance had been examining the possibility of giving anti-tank guns mobility since 1940. There were numerous attempts underway to mount anti-tank guns on a variety of chassis. The standard anti-tank gun of the time was the 37mm anti-tank gun, a relatively small weapon. Its compact size meant that it could be mounted on a chassis as small as a jeep. Trials were conducted of 37mm guns mounted on jeeps, 3/4 ton trucks and other chassis. Although the jeep mountings were technically feasible, in the end they were impractical since the jeep was too small to carry the crew, a full load of ammunition and other necessary equipment. Work on 37mm gun mounted on a 3/4 ton weapons carrier began in earnest in the summer of 1941 as the T21. The US Army was planning on fielding the better armored T22 with a 37mm gun (later known as the M8 armored car), so the T21 truck-mounting was viewed as an expedient until the T22/M8 became available. Different configurations for the gun were attempted including both backward and forward mountings. The rearward firing configuration eventually won, since it allowed the lightly-protected vehicle to scoot away more easily. Besides, a forward-mounted gun had the tendency to shatter the vehicle's windshield and injure the driver and front crewman when fired. The new tank destroyer with the 37mm gun was authorized for procurement as the M4 37mm gun motor carriage, but the designation was quickly changed to M6 37mm GMC to avoid confusion with the M4 37mm gun carriage of the normal towed M3 37mm gun. This was the least expensive tank destroyer manufactured during the war, costing $4,265 each. The M6 37mm GMC was popularly called a Fargo during the war, based on the Fargo Division of the Chrysler Corp. that manufactured them. A total of 5,380 were manufactured from April to October 1942.

From the 1940 fighting in France, the US Army had already recognized that the 37mm gun was threatened with obsolescence. So besides the work on 37mm tank destroyers, work was also initiated on heavier weapons. The Army desired a fully tracked chassis, but recognized that this would take time to develop due to the priority being given to tanks. The first vehicle designed was the T1 3in. Gun Motor Carriage which used a Cleveland Tractor Co. (Cletrac) high-speed tractor chassis, a type of vehicle used by the Army Air Corps as an airfield towing vehicle. This was standardized eleven months later in November 1941 as the 3in. GMC M5. However, the chassis was very unpopular with the troops. Brig.Gen. Andrew Bruce, who commanded the Tank Destroyers, dubbed it the "Cleak-Track" and refused to accept it for his units. The Ordnance Department was forced to cancel the M5 program before series production took place. The main reason for quickly abandoning the M5 GMC was the rapid progress made on another expedient tank destroyer, the T12. In June 1941, work began on mounting the M1897A4 75mm gun on a M3 half-track personnel carrier as an expedient tank destroyer. This proved very straightforward, and the weapon was standardized as the 75mm Gun Motor Carriage M3 in October 1941 ahead of the M5.

Production of both the M3 75mm GMC proceeded quickly. A total of 86 pilot vehicle were completed in August-September 1941, and production of the standardized production model with an improved gun shield began in late February 1942. A total of 2,202 were manufactured through April 1943. The later production vehicles used the M2A2 gun mount when supplies of the M2A3 mount ran out; these were called M3A1 75mm GMC, but are almost impossible to distinguish from the M3 75mm GMC.

The M10 Tank Destroyer

While production of the M6 37mm GMC and M3 75mm GMC began, the Army continued to experiment with other mountings for the 75mm and 3in. guns. In September 1941, a 3in. gun was mounted in a M3 medium tank with its turret removed. Although the mounting was practical, the vehicle was too large and bulky. The project was canceled. In its place, in April 1942 the Army began development of the T35 3in. GMC which mated a turreted 3in. gun to a M4A2 medium tank chassis. The idea behind the T35 was that by using lighter armor than the standard M4 medium tank, the tank destroyer force would end up with a vehicle with greater firepower than a M4 tank, but at a lower cost and at a lower weight. The T35 had no turret roof armor. The T35E1 with angled side armor was standardized in June 1942 as the 3in. Gun Motor Carriage M10, and it would become the most commonly used US tank destroyer of World War 2. Series production of the M10 began at the Grand Blanc Tank Arsenal in September 1942. A M10 3in. GMC cost $47,905 compared to $60,215 for the corresponding M4A2 medium tank.

Tank Destroyers Enter Combat

Ironically, the first combat employment of US Army tank destroyers did not actually involve tank destroyers units. In November 1941, the US Army began forming the Provisional Tank Group to reinforce the US Army garrison in the Philippines. In order to reinforce the M3 light tanks being dispatched to the Philippines, it was decided to form a self-propelled artillery unit from 50 of the 86 pilot production T12 75mm GMCs recently manufactured. They were used to form three battalions of the Provisional Field Artillery Brigade and were rushed to the Philippines in November-December 1941. Locally called SPMs (self-propelled mounts) they saw considerable combat action following the Japanese invasion of the Philippines in December 1941. Encounters with Japanese armor was rare, so as often as not they were used for direct gunfire support rather than as anti-tank weapons. The SPMs fought during the Bataan campaign, and Capt. Gordon Peck's battery developed a hard earned reputation while supporting of the Provisional Tank Group. The Japanese later refurbished several captured M3 GMCs, and these were used in action against US forces when the Philippines were retaken in 1944-45. The Philippines campaign had little impact on the evolution of the Tank Destroyer concept, since tank fighting was relatively uncommon.

Of far more importance to the evolution of the Tank Destroyer concept was the British experience in North Africa in early 1942. The US Army has liaison teams with the British 8th Army and sent back reports of the desert fighting. It soon became apparent to US Army officials that the standard 37mm gun was likely to be ineffective against German armor judging from the performance of the similar British 2 pdr. gun. The British were already adopting the more effective 6 pdr. anti-tank gun, and the US Army itself had authorized an American copy in 1941 as the 57mm anti-tank gun. Plans to deploy the T22 37mm GMC were stopped, and the vehicles when accepted to service were redesignated as M8 armored cars and given a different role. On 1 July 1942, the Army Ground Forces decided that the Tank Destroyer force would abandon the towed 37mm and 57mm guns as soon as practical in favor of self-propelled 3in. guns. The 37mm and 57mm anti-tank guns would remain in service with infantry anti-tank companies. Gen. Bruce did not want a towed 3in. gun for the Tank Destroyers, but eventually they were produced despite his objections. There was an ample supply of M6 37mm GMC and M3 75mm GMC and so deployment continued until the new M10 3in. GMC became available. In 1941, the US Army considered fielding three types of tank destroyer units: a heavy self-propelled battalion with M3 75mm GMC, a light self-propelled battalion with M6 37mm GMC and a light towed battalion with M3 towed 37mm guns. Due to the British experiences, it was decided to abandon the light self-propelled battalion in favor of a mixed self-propelled battalion equipped with both M3 75mm GMC and M6 37mm GMC.

Tank Destroyers in North Africa

When US Army units began preparing for Operation Torch, the invasion of North Africa, in the autumn of 1942, the only tank destroyers available were the M3 75mm GMC and the M6 37mm GMC. The first Tank Destroyer unit deployed, the 601st Tank Destroyer Battalion, was equipped with these expedient types. The experiences of the tank destroyer vehicles were mixed. The M6 37mm GMC was widely regarded as a failure. One officer bluntly reported that "the sending of such a patently inadequate tank destroyer into combat can at best be described as a tragic mistake." The M6 37mm "Fargo" was simply too poorly protected against any kind of fire, and its 37mm gun was hopelessly inadequate by 1943 standards. As a result of these experiences, the remaining M6s were pulled from Tank Destroyer units and reconverted back into unarmed weapons carriers. The performance of the M3 75mm GMCs was somewhat better. The 601st Tank Destroyer Battalion was committed to action on a number of occasions, and when used properly performed quite well. The M3 75mm GMC's shining moment came in March 1943 when the 601st Tank Destroyer Battalion repulsed an attack on the 1st Infantry Division by about 100 German tanks of the 10th Panzer Division near El Guettar. The battalion claimed to have destroyed 30 German tanks including 2 Tiger Is for the loss of 21 M3 75mm GMCs. Gen. George Patton did not agree with the Tank Destroyer's assessment of the battle, feeling that the losses suffered had been too high for the damage inflicted but the Tank Destroyer force saw this battle as a vindication of their vision.

Patton, and several other prominent army leaders, were extremely unhappy with the tank destroyer concept, and advocated abandoning tank destroyer battalions in favor of standard tank battalions. The Tank Destroyer advocates argued that the main fault had not been the Tank Destroyer units, but rather the misuse of tank destroyer battalions by higher commands. The Army Ground Force's report argued that "The (601st and 701st Tank Destroyer Battalions) were generally used in roles for which they were not designed such as infantry accompanying guns, assault guns, assault artillery operating with tanks, and in cordon defense instead of depth." Opponents of the tank destroyers such as Gens. Patton, Devers, and Bradley argued that the poor protection of the tank destroyers made them less versatile in combat than tanks. Lt. Gen. Jacob Devers, who commanded the Armored Force at the time, stated quite bluntly that "The separate tank destroyer arm is not a practical concept on the battlefield." Gen. Omar Bradley argued that towed guns used from forward defensive positions were a better solution for anti-tank defense, and pushed for a better gun than the obsolete 37mm M3 towed gun. One of the few positive comments to emerge from the North Africa campaign about the Tank Destroyers was that the new M10 was greatly preferred over the M3 75mm GMC and M6 37mm GMC. This was just as well, as this was the only tank destroyer being manufactured at the time for the US Army.

As a result of the North Africa experience, the Tank Destroyer force began reequipping its units with M10 3in. GMCs as quickly as they became available and further use of the M6 37mm GMC was abandoned. The M3 75mm GMC was declared Limited Standard in February 1944 and Obsolete in August 1944. Although they saw little service with the US Army after North Africa, they did continue to soldier on in other roles. The British Army used them in the heavy troops of armored car units for fire support during the Italian campaign, and later in a dwindling number of units in France in 1944. The US Marine Corps deployed the M3 75mm GMC in their divisional special weapons company, and they continued to provide yeoman's service in the direct fire support role even as late as the Iwo Jima and Okinawa campaigns in 1945. There was scattered use of the M6 GMC in 1943 in the Pacific, and later by Free French troops in Europe in 1944.

One of the unfortunate outcomes of the Tunisia campaign was the reemergence of towed tank destroyer battalions. Gen. McNair and the AGF had been fervent advocates of low-cost solutions and had long favored towed guns. When some commanders such as Bradley advocated the substitution of a defense anti-tank doctrine with towed guns and a replacement of tank destroyer battalions by tank battalions, McNair acted on part of the suggestion but ignored the heart of the argument. In March 1943, the AGF ordered the conversion of fifteen battalions from self-propelled to towed. The new towed battalions used the new M5 3in. towed anti-tank gun, a simple adaptation of the 3in. gun on the same carriage as the standard 105mm howitzer. The new towed tank destroyer battalions would prove even less practical than the self-propelled battalions and were a considerable mistake.

New Tank Destroyers

Gen. Bruce's dream for a tank destroyer was a fleet vehicle, lower and sleeker than the boxy M10. He was particularly enamored of a new General Motors design which evolved from the 37mm T42 GMC to the upgunned 57mm T49 GMC. Due to the decision by the Army Ground Forces to abandon 37mm and 57mm guns for the Tank Destroyers, in July 1942, Bruce asked if the vehicle could be armed with a more suitable gun. This resulted first in the T67 with Christie suspension, and finally the T70 with torsion bar suspension and the new 76mm M1 gun. The T70 was finally standardized in February 1944 as the M18 76mm Gun Motor Carriage. It was quickly dubbed the "Hellcat" by publicists at Buick Motor Car Division where they were produced. However, series production did not start until July 1944, so they were not available in time for the June 1944 invasion at Normandy.

The M18 was not the only new tank destroyer. Due to the heavy equipment demands of the new Tank Destroyer Force, the Grand Blanc Tank Arsenal could not fulfill all the requirements. As a result, plans were laid to manufacture a version based on the M4A3 tank chassis with the Ford engine at the Ford Motor Company plant. This version was designated as the M10A1 3in. GMC and production began in October 1942. In fact, the M10A1 was not issued to combat units, and eventually most were rebuilt as M36 tank destroyers.

Another new tank destroyer to appear in 1943 was the T48 57mm GMC. The T48 was based on a British requirement, as by this time, the Tank Destroyer force had decided to adopt the M10 with its 3in. gun. The pilot was ordered in April 1942 and consisted of a locally manufactured British 6 pdr., designated the M1 57mm anti-tank gun, mounted on an M3 half-track chassis. The first production batch was accepted in December 1942 and was never type classified since it was intended for Lend Lease only. A total of 962 were manufactured from December 1942 to May 1943. By the time that these became available for transport, the British Army felt that the 57mm gun was becoming inadequate. Only 30 were provided to Britain under Lend-Lease, and they were mostly converted back into M3 half-track carriers. The majority of the production run, 650 vehicles, was supplied to the Soviet Union under Lend-Lease and the remaining 281 were converted back to M3A1 half-track carriers for US Army use. The Red Army redesignated them as SU-57 and formed them into special independent tank destroyer brigades with three battalions and 60 SU-57s each. The first of these to see combat was the 16th Separate Tank Destroyer Brigade which went into action during the Dnepr river offensive in Ukraine in August 1943. The 19th Brigade fought during the Baranow bridgehead battles in Poland in August 1944, and some of these units took part in the Berlin campaign and Prague campaign in April-May 1945. The Soviets later turned over 15 of these to the Polish People's Army where they were employed by the 7th Self-propelled Artillery Battery during the fighting in Poland and Germany in 1944-45.

The Italian Campaign

By the time of the Allied landings on the Italian mainland at Salerno in September 1943, most tank destroyer battalions that were deployed had been reequipped with M10 3in. GMCs. Although this was a decided improvement over the equipment used in North Africa, the problem remained that Tank Destroyer doctrine was inherently unsound. Based on a mistaken misperception of German 1940 tactics, the doctrine had not been adapted to respond to the style of combined-arms warfare that existed by 1943. German tanks were not encountered in vast avalanches, but rather in small groups coordinated with infantry and artillery. US commanders were unwilling to keep the tank destroyers in reserve until the mythical massed tank attack occurred, and so tended to commit the tank destroyers piecemeal whenever the occasion demanded. By 1943, the pattern was developing of attaching tank destroyer battalions for armored support to infantry division; each tank division also had its own battalion. When used in infantry support, the tank destroyer closely resembled the German *sturmgeschutz* or Soviet assault guns in tactical role. These vehicles provided mobile, direct fire support against targets of opportunity. As often as not these targets were fortified positions, bunkers, or troops protected inside buildings. Encounters with German armor in Italy were not particularly common.

The tactical adaptation of the tank destroyers revealed their technical shortcomings. The tank destroyers, and the M10 in particular, were not well armored against contemporary German anti-tank weapons such as the 75mm PaK 40 anti-tank gun. In addition, their open turreted configuration made them unsuitable for forward deployment since their turret crews were vulnerable to sniper fire. They were not as useful as German *sturmgeschutz* for close infantry support in urban or forested areas, since the open turret left the crew vulnerable to small arms fire and grenades. These experiences led many US Army commanders to request that tank destroyer battalions be reequipped as normal tank battalions with the more versatile M4 medium tank. However, the AGF under Gen. McNair continued to support his hobby-horse, feeling that the real armored encounters would not take place until battle was joined in France. During the landings at Anzio on the Italian coast in May 1944, a handful of T70 76mm GMC prototypes were deployed for combat trials. The T70 had by this point been accepted for service as the M18 76mm GMC. The general reaction to the new vehicles was quite favorable, but they would not appear in any significant number until the autumn of 1944.

Tank Destroyers in France

The experience of tank destroyer battalions in France largely paralleled the experiences in Italy. The M10 battalions were usually deployed in support of infantry divisions in the close-fire support role. Their initial use in the close-grained terrain of Normandy accented the problems with the open turret roof and their vulnerability. However, on the positive side, they were the best armed US armored vehicle in France in 1944 except for small numbers of M4 medium tanks with the new 76mm gun. They proved popular fire support vehicles for the infantry, since they offered more accurate, more immediate, and more lethal fire support than conventional indirect fire artillery. They proved particularly useful in knocking out machine gun nests and bunkers in the thick hedgerows. The towed battalions, as in Italy, were a lingering problem. Although they were certainly easier to conceal than the M10 as their advocates had argued, they were not sufficiently mobile and were so vulnerable that commanders were hesitant to deploy them. More importantly, they lacked the versatility of the self-propelled tank destroyers since they could not be used as mobile fire support weapons. During the Normandy campaign, the average M10 battalion knocked out 22 *panzers* and 23 pillboxes, the average towed battalion only 6 *panzers* and 4 pillboxes.

The practice of retaining tank destroyers in a corps reserve largely disappeared after the Normandy campaign. Indeed, the opposite began to emerge as the standard practice. Tank destroyer battalions were increasingly doled out as nearly permanent attachments to infantry divisions, and the divisions tended to dole out companies to each of the line regiments or battalions. This was completely opposite to the tactics proposed by the discredited Tank Destroyer Center, but the M10s became a much appreciated element of combined infantry-armor teams for assaulting dug-in German positions.

The most pernicious effect of the failed Tank Destroyer doctrine was the distorting effect it had on US tank gun development. Due to the AGFs mistaken division of responsibility of roles between the armored divisions and tank destroyer battalions, a reductionist view became common that tanks did not need to fight tanks, and that any fighting against enemy tanks would be handled by the tank destroyers. As a result, tank destroyers were given the better anti-tank weapons, in the case of 1943, a 3in. gun while the M4 medium tank was still armed with a 75mm gun, in 1944 a 90mm gun vs. a 76mm gun. Although the German Tiger I heavy tank had already been encountered in Tunisia in 1943, there was little appreciation within the US Army of the general shift in German tank design towards better tank designs. German tank evolution was pushed along by the experiences of the Eastern Front and by continuing improvements in Soviet tank design. The US Army was oblivious to this even though the technical intelligence had reported the emergence of the new German Panther medium tank late in 1943. Most US Army commanders remained confident in the M4 medium tank and M10 tank destroyer right up to the Normandy landings.

The large scale encounters with the German Panther tank in Normandy shook the US Army out of its complacency. Neither the M4 medium tank nor M10 were suited to dealing with this potent design. The US Army was spared the worst of these encounters, as most of the heavy tank fighting in France through August 1944 was borne by the British Army around Caen (see the Concord book *Tank Warfare in Normandy*). The British had shown a better appreciation for the likely threat of German armor and had deployed a new anti-tank gun by the time of Normandy, the 17 pdr. An adaptation was developed for the M4 tank, resulting in the Sherman Firefly. The British Army also decided to reequip as many of its Lend-Lease M10s as possible with this weapon, and these uparmed M10s also appeared in the campaign in France. The upgunned M10 with the intermediate style of turret was dubbed the SP, 17 pdr. M10 Mark I, and with the later "duck-bill" turret, the Mark II. These were sometimes called the Achilles IC and Achilles IIC respectively, but this name was not common among the serving troops.

In July 1944, a captured Panther was displayed to senior commanders and subjected to fire from existing weapons as well as the 90mm anti-aircraft gun. Gen. Dwight Eisenhower complained: "Ordnance told me this 76 (mm gun) would take care of anything the Germans had. Now I find it can't knock out a damn thing!" This was a bit of hyperbole, as the 76mm gun with the right ammunition could knock out the Panther. But the Normandy experience led to the demand for better anti-tank weapons.

Work to field a 90mm anti-tank gun had been given a boost since the first Tiger was encountered 1943. The 90mm was too large to fit comfortably into the M4 medium tank; it was being assigned to the new T26 Pershing tank under development at the time. There had been a plan since 1942 to field a dual-role gun motor carriage with a 90mm gun that could double as an anti-tank or anti-aircraft weapon as was the German practice with their 88mm gun. This T53 project was eventually canceled, but a more practical effort, the T71, started in October 1942 combining the M3 90mm gun on the M10A1 chassis. There was little priority due to a lack of support from either the Tank Destroyer Center or the Armored Force. Design of the T71 began in earnest in March 1943, and trials at Aberdeen Proving Ground in the summer were satisfactory. An initial order for 500 vehicles was approved in November as a limited procurement item. The T71 was not finally standardized until June 1944, when it was designated as the M36 90mm GMC.

Eisenhower's reaction to the July 1944 Panther trials led to an urgent requirement for 90mm guns as quickly as possible. As a result, the delivery of M36 tank destroyers was accelerated, with the first arriving in France in September 1944. In addition, the Ordnance department decided to convert 187 M4A3 medium tanks into 90mm tank destroyers by placing the M36 turret on the M4A3 hull. This resulted in the M36B1. The M36 was immediately popular with the troops. The 90mm gun gave off less smoke on firing than the 3in. gun on the M10, making it less likely to give away its own position. The main attraction, obviously, was its greater lethality against the heavier German tanks. The 90mm gun could defeat even the King Tiger under the proper circumstances. For example, during fighting near Freialdenhoven in Germany in December 1944, a M36 of the 702nd Tank Destroyer Battalion knocked out a King Tiger at a range of 1,000 yards with a side shot against the turret. Penetrations of Panthers could be accomplished at ranges of over 1,500 yards.

Also appearing in significant numbers for the first time was the M18 Hellcat 76mm GMC. The Hellcat was one of the most popular tank destroyers to appear in Europe, due to its excellent mobility. By 15 August 1944, 689 had already been deployed, and an Ordnance field report concluded that "the vehicle was well received by tank destroyer units. The high mobility of the vehicle was a definite advantage, though the using troops felt that the very light armor should be corrected. The M18 GMC was very often employed in missions beyond the scope of its design, such as direct firing at pillboxes. It was necessary to deploy these vehicles in these roles because of the lack of firepower of the medium tank." Its first major combat action was in the siege of Brest, where it was used mainly in street fight, a role for which it was never intended. Its first major use in its intended role was during the September 1944 fighting during the Moselle campaign around Nancy. Company C, 704th Tank Destroyer Battalion of the 4th Armored Division took part in the savage tank battle at Arracourt on 19 September 1944, one of the largest US-German tank battles of the war. The tank destroyers became involved in a close-range melee against Panthers and PzKpfw IVs of the 113.Panzer Brigade. The M18s were able to take advantage of the foggy weather and hilly terrain, and one of the companies platoon claimed 15

German tanks knocked out. However, three of the platoon's four M18s were knocked out in the process.

Battle of the Bulge

The ultimate test of the tank destroyers came in December 1944 with the German Ardennes offensive. This was one of the few campaigns where US Army units faced offensive *panzer* attacks - the mission for which the tank destroyers had been conceived. There were about two dozen tank destroyer battalions eventually involved in the Battle of the Bulge. The towed battalions fared poorly due to their lack of mobility and protection. For example, the 644th Tank Destroyer Battalion with its M10s proved quite successful in the defense of the Elsenborn ridge, while the neighboring towed 801st Tank Destroyer Battalion lost 17 guns and 16 half-track prime movers to German fire in only two days while trying to redeploy in the muddy and slushy conditions. Tank destroyers played a key role in many sectors, including the M36s of the 7th Armored Division at St. Vith and the M18s of the 705th Tank Destroyer Battalion in encircled Bastogne. In total, tank destroyers were credited with knocking out 306 German tanks during the fighting, mainly by the self-propelled tank destroyers. The Ardennes fighting was the death nell of the towed battalions. In the first week of fighting, the First Army lost 77 tank destroyers, 65 of them towed. After the Ardennes, the AGF decided to convert all towed battalions to self-propelled. The M36 emerged as the only satisfactory tank destroyer of the campaign much praised for its "sure kill" ability against German tanks. However, even the M36 was judged inadequate in armor protection due to its open roof. What was clearly desired was a tank with the firepower of the M36, and these finally began to appear in Europe in February 1945 with the first M26 Pershings.

The tank destroyer battalions continued to fight with distinction through the remainder of the European campaign. After the Ardennes fighting, German armor became a relative rarity. In the final months of the war, it was in the fire support role that most tank destroyers were eventually used. Some measure of this can be determined from ammunition expenditures. The US First Army, which fought in the Ardennes, fired 337,367 rounds of 3in. high explosive ammunition from August 1944 to February 1945, compared to only 29,210 rounds of armor piercing, an 11-to-1 ratio. The tank destroyers saw extensive use in operations along the Siegfried line, where their accurate weapons proved very effective against German bunker complexes.

A post-war study of 39 tank destroyer battalions concluded that they had knocked out 1,344 German tanks and assault guns, an average of 34 per battalion. The highest scoring battalion claimed 105 German tanks and assault guns. Of equal importance, the battalions averaged 17 pillboxes, 16 machine gun nests and 24 vehicles each. Ultimately, the US Army judged the Tank Destroyer concept to be fundamentally flawed. Individual tank destroyer battalions had fought well and added a significant capability to the fighting power of US divisions. But their utility had more to do with the adaptability of the tank destroyers to roles other than their intended function, using tactics diametrically opposed to the prescribed tactics. As a result, after the war all tank destroyer battalions were disbanded, their role taken by normal tank battalions, and the Tank Destroyer Center was closed.

Tank Destroyers in the Pacific

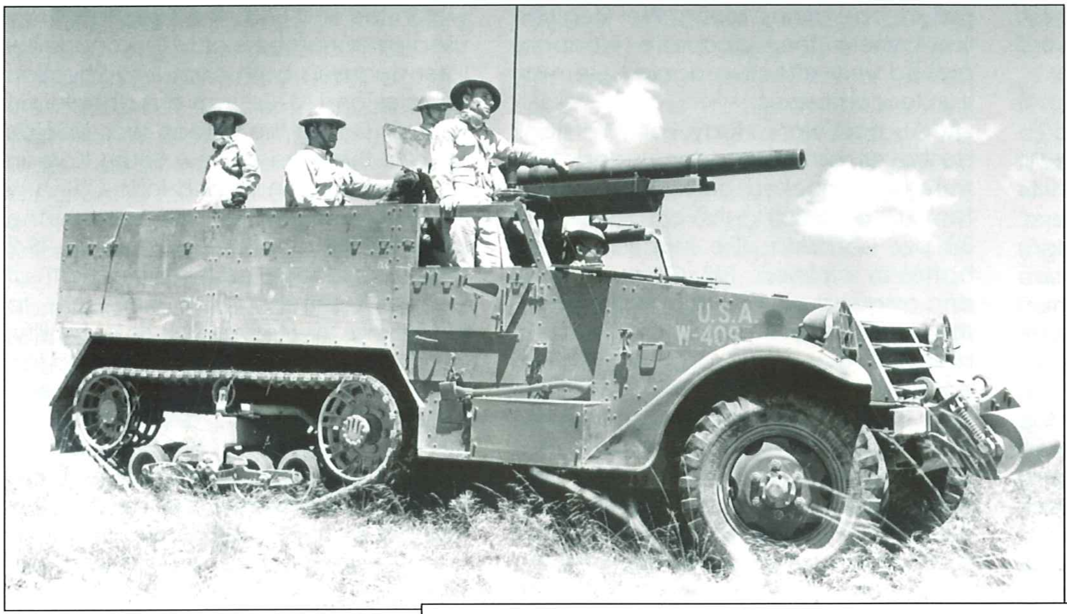
Seven Tank Destroyer battalions were also deployed in the Pacific. As mentioned earlier, the first use of tank destroyers was in the Philippines in 1941, but in an artillery role. The M10 was first used in combat in the Pacific on Kwajelin in support of the 7th Division, but as substitute equipment in a tank battalion. The first combat use of tank destroyer battalions in the Pacific was in the Palaus Islands in June 1944 with M10s of the 819th Tank Destroyer Battalion. The most extensive use of tank destroyers took place in the Philippines campaign with three tank destroyer battalions taking part in the fighting on Luzon (632nd, 637th, 640th) and later on Leyte (632nd Tank Destroyer Battalion). To an even greater extent than in Europe, tank destroyers were used for direct fire support of infantry. In general, the tank destroyers were not well received in the Pacific, as their open tops exposed them to the ferocious Japanese close-in anti-armor tactics. Tank destroyer tactics in the Pacific stressed the use of the tank destroyers from stand-off distances, with adequate infantry protection.

Post-War Use of Tank Destroyers

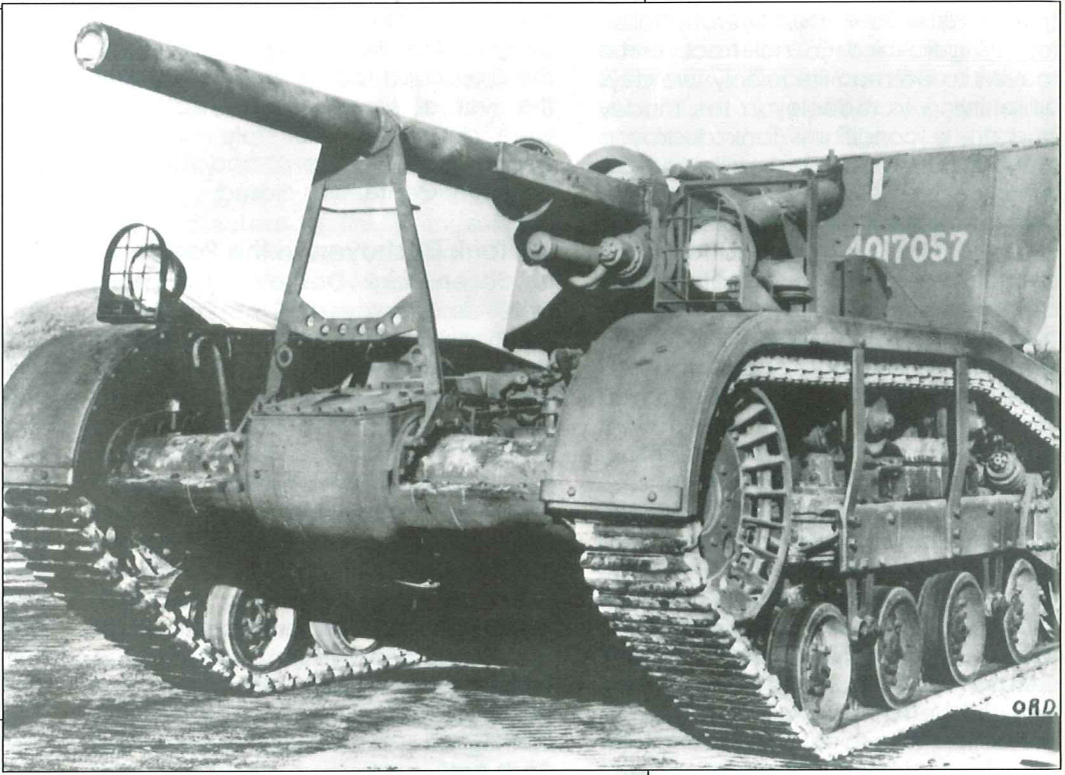
Although the tank destroyer concept largely ended in the US Army after World War 2, the tank destroyer vehicles were still viable weapons with the right tactics. They have seen small scale use up to the present in many wars around the globe. During the 1948 war in the Mid-East, the Egyptian Army used small numbers of M10s, and Israel later acquired both captured Egyptian vehicles and M10s from arms dealers in Europe. During the Korean War, M36B2s formed the core of new South Korean armored units. In French Indo-China in 1950, there was concern over the possible intervention of Chinese IS-2 Stalin heavy tanks on the plains north of Hanoi. A Panther tank was sent to Indochina for trials to test its suitability, but the weather and terrain proved too much and it was abandoned there. Instead, the French dispatched the RBCEO (*Regiment Blinde Colonial Extreme Orient*- Far East Colonial Armor Regiment) with M36B2 tank destroyers in November 1950. M36 tank destroyers were also used in the 1965 Indo-Pakistan war by the Pakistani Army. During the 1965 war, the fifty M36's served in cavalry units with one squadron each in the 25th Cavalry and 11th Cavalry. The firepower of the M36s was so effective that the Indian Army considered the M36s medium tanks in their assessment. The Indian Army claimed to knock out about 12 M36B2s during the major tank battle at Asal Uttar alone. Due to their age and combat losses in 1965, most M36B2s were retired from Pakistani service prior to the 1971 war. Probably the final use of these old war machines took place in the early 1990s with the Yugoslav civil war. In the 1950s, the US provided several dozen M18 Hellcat and M36 90mm GMCs to the Yugoslav People's Army under the Military Assistance Program. The Yugoslav Army maintained these vehicles in war reserve status, and when fighting broke out there, several of the new national armies seized them for their own use. The M36 has been put to use by the Croatian Army, and the M18s are known to be in use by Serbian forces in Bosnia.

Author's Note

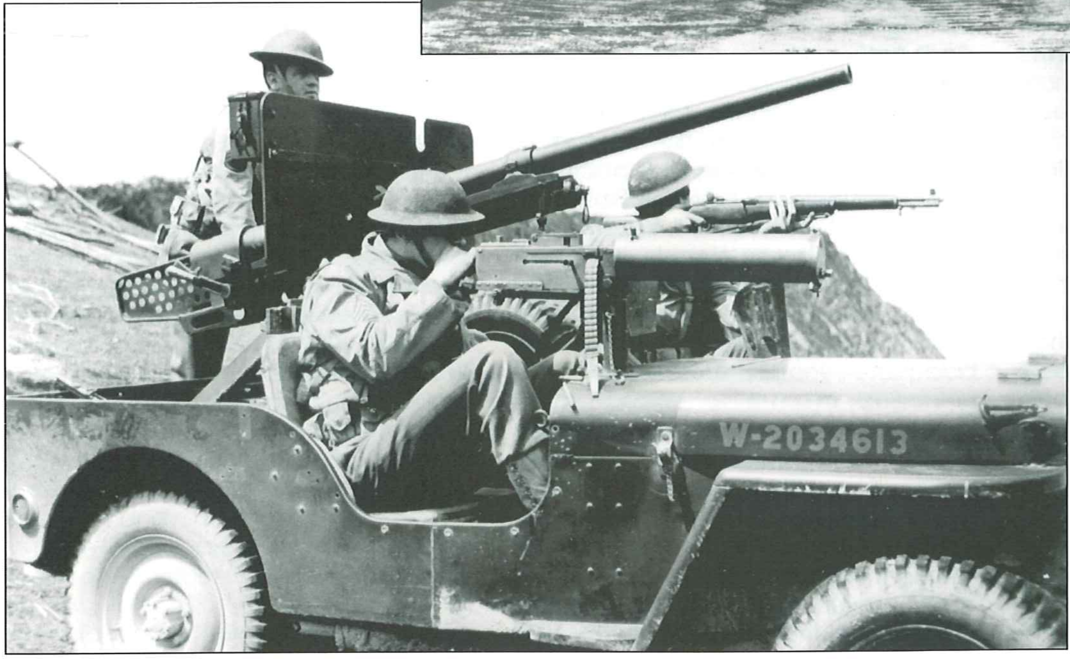
Except where noted, all photos in this book are from official US sources including the US Army Signal Corps, the US Marine Corps, the Office of War Information, and the US Navy. Most of these collections are now maintained by the US National Archives in Washington, DC.



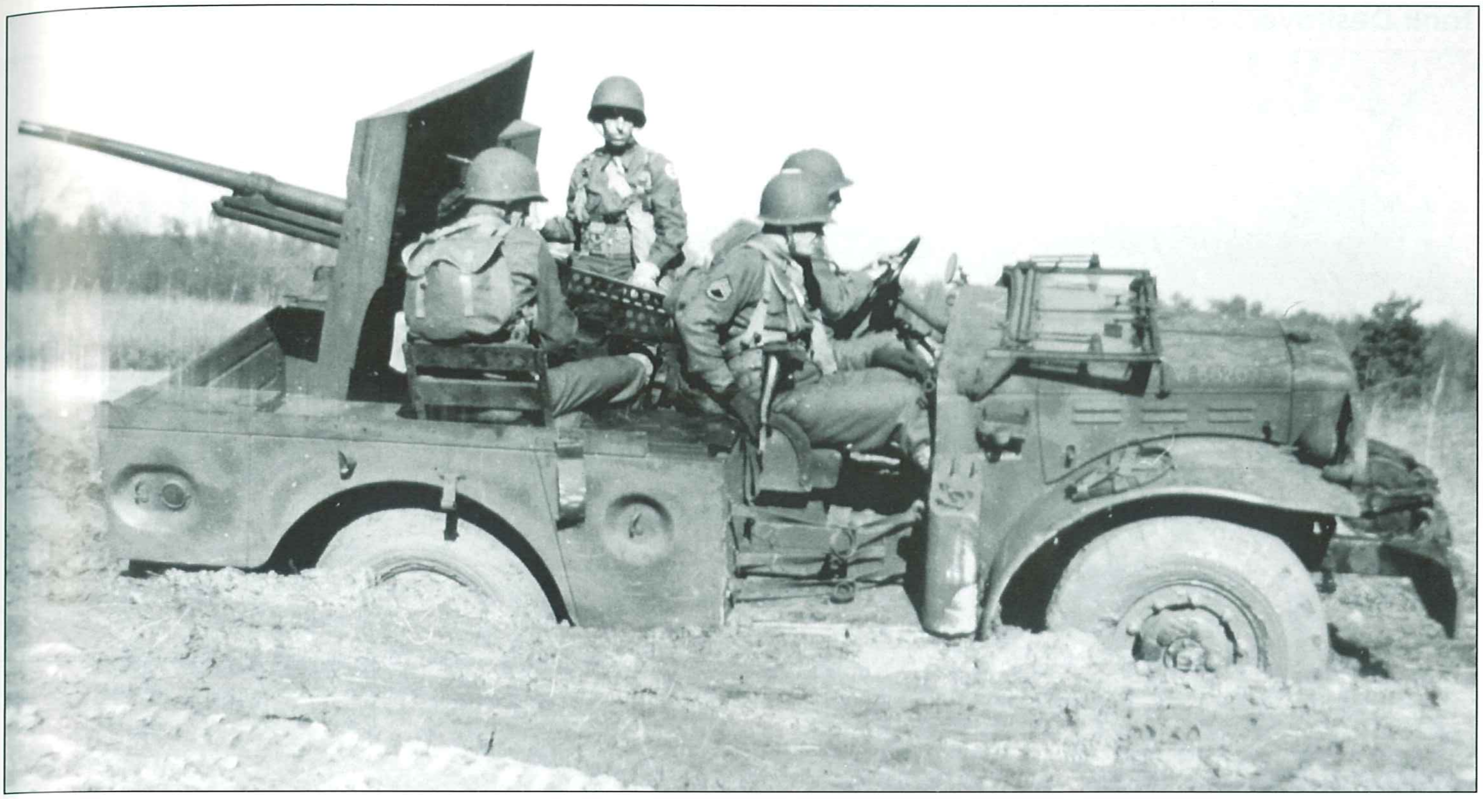
The first tank destroyer in US Army service during World War 2 was the T12 75mm Gun Motor Carriage, seen here at the main training ground for the Tank Destroyer Force, Ft. Hood, Texas. A total of 86 of these were built in the autumn of 1941 in a pilot series. This batch was characterized by the simple flat gunshield common to the towed M2A3 75mm gun carriage. Other features common to these early production vehicles are the fixed automotive style headlights and the lack of scuff covers on the wheel hubs.



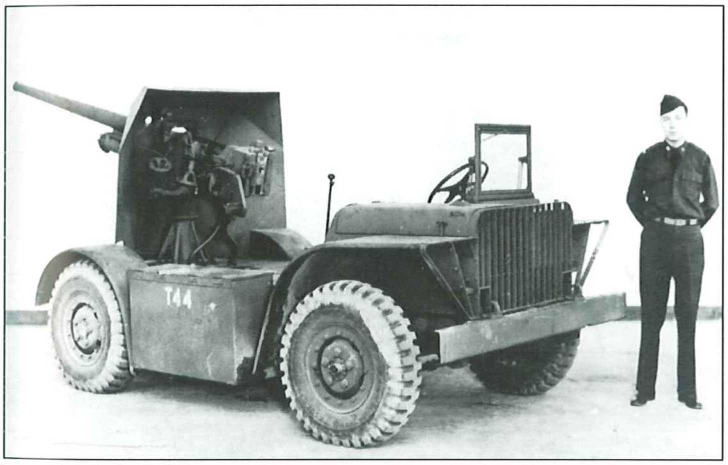
Army Ordnance's contender for the heavy tank destroyer was this M5 3in. GMC based on a Cleveland Tractor (Cletrac) high-speed tractor chassis. The head of the Tank Destroyer force dubbed it the Cleak-Track due to its poor performance in troop trials. It did not enter series production and the program was canceled in 1942.



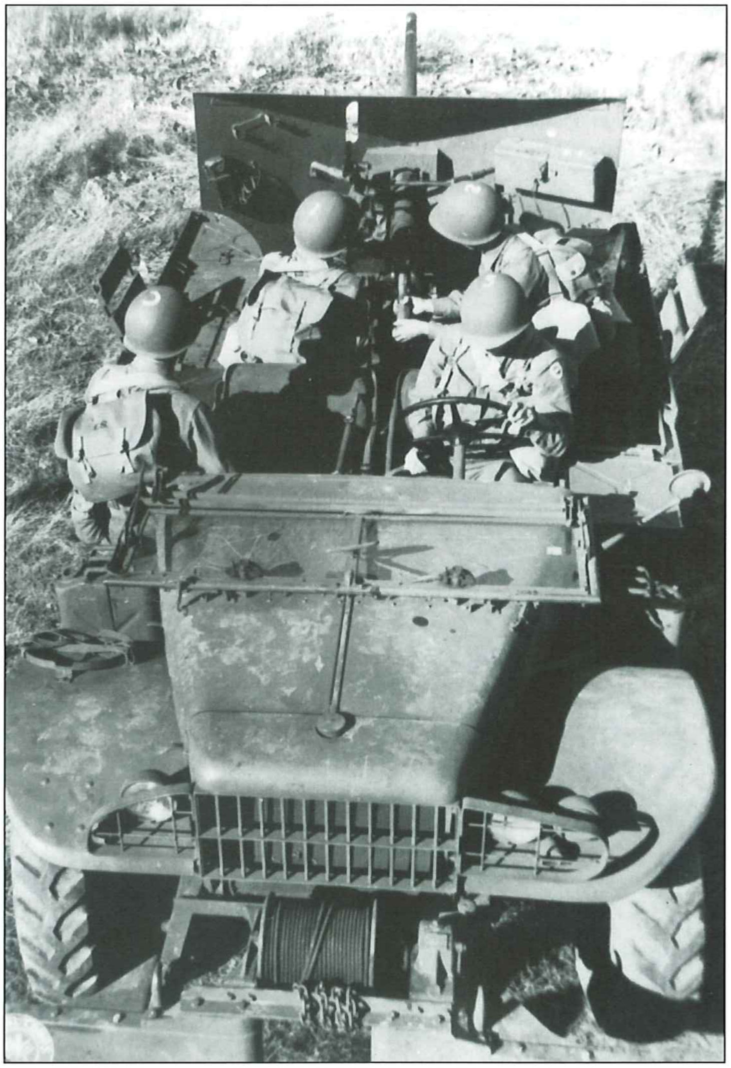
There were a variety of attempts to mount the 37mm anti-tank gun on wheeled chassis, some conducted by Army Ordnance, and others by units in the field. This jeep at Camp Funston in November 1941 bristles with weapons including the 37mm gun and a water-cooled .30 cal. Browning machine gun.



The chassis eventually selected for the light tank destroyer was the 3/4 ton weapons carrier, manufactured by the Fargo Division of Chrysler. It was classified as the M6 37mm Gun Motor Carriage. The series production vehicles had a large armored shield over the gun to protect the crew. The standard procedure for the vehicle was to back up into a firing position to employ the gun over the rear of the vehicle. In this fashion, the truck could be driven away at high speed if needed. Firing over the front was discouraged since the concussion of the firing gun could injure the front crew, windshield and headlights.

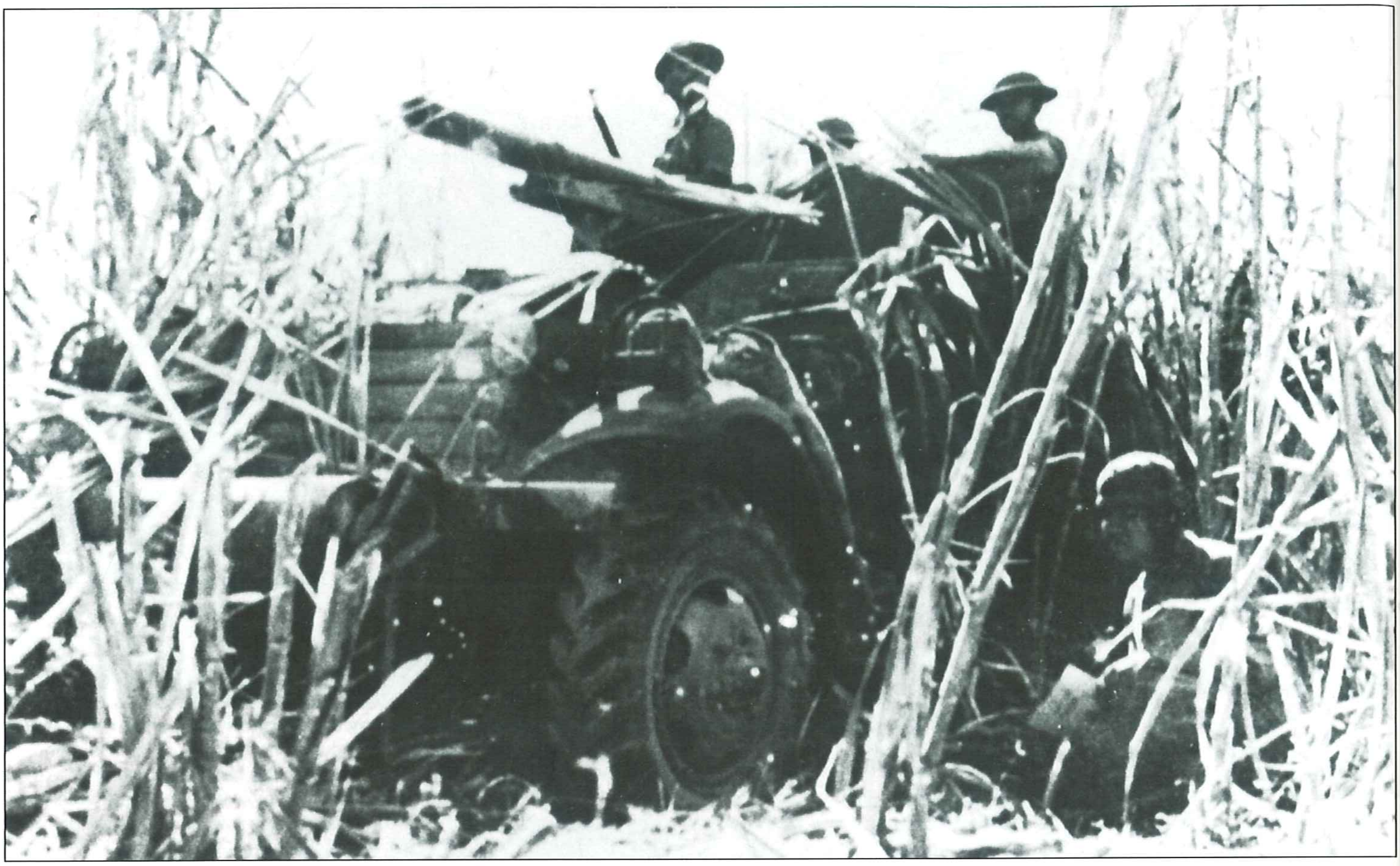


Some thought was given to replace the M6 37mm GMC with a more potent weapon. Among the experimental alternatives was the T44 57mm GMC which used the American 57mm copy of Britain's excellent 6 pdr. anti-tank gun. However, by the summer of 1942, the Tank Destroyer force decided to standardize on a larger weapon, the 3in. gun.

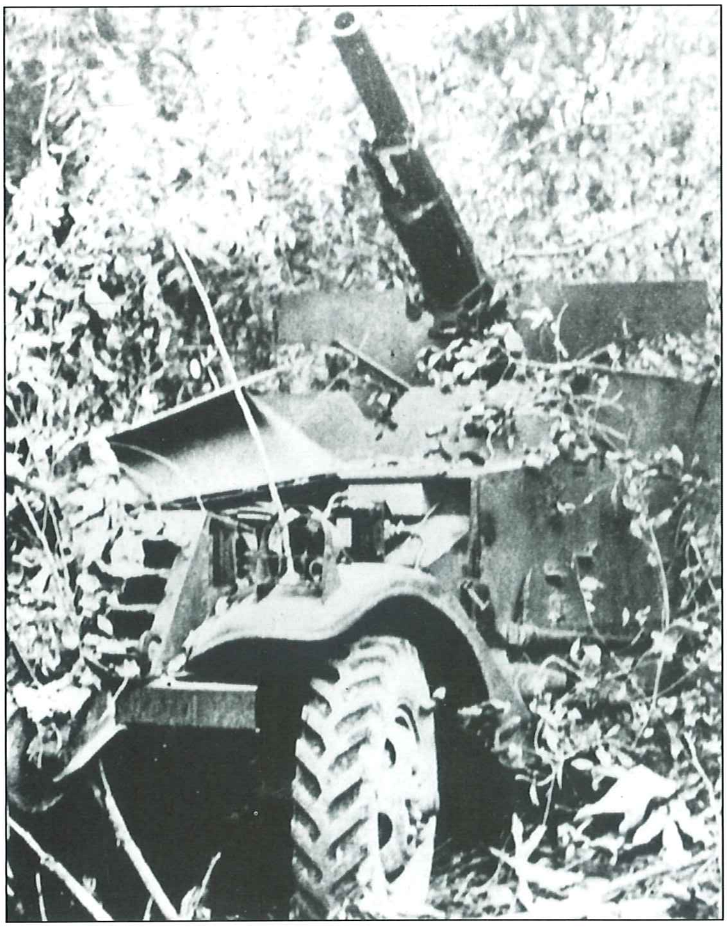


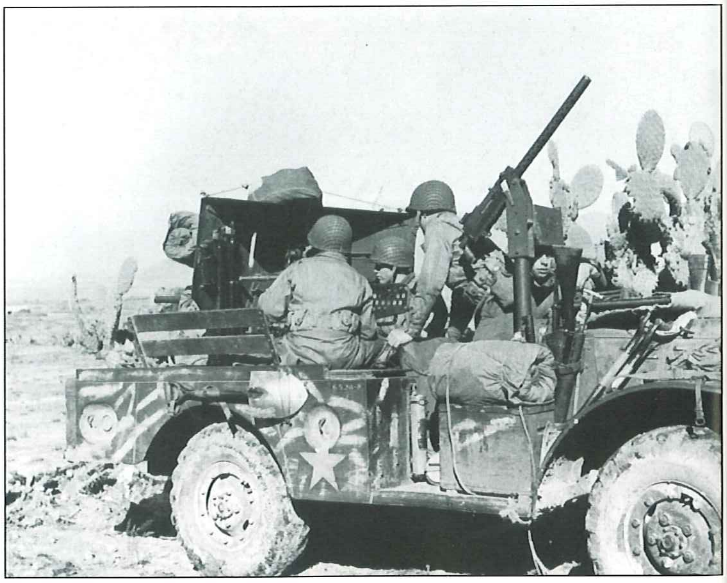
The reason that the 3/4 ton weapons carrier was selected rather than the jeep for the light tank destroyer was the space needed by the crew and the ammo stowage. This view of a crew training in Arkansas in November 1942 prior to Operation Torch shows the standard gun drill.

Tank Destroyers Enter Combat



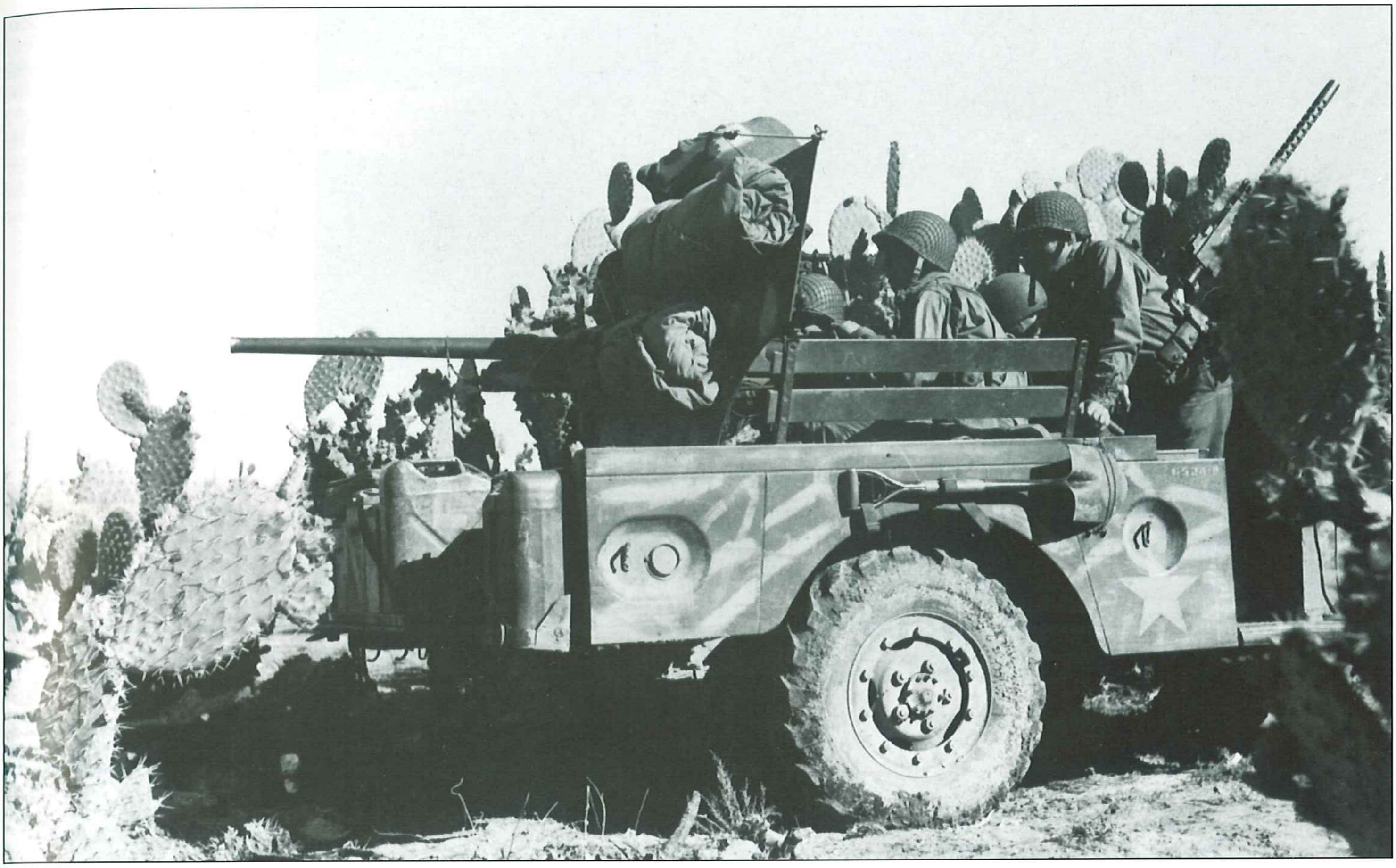
The first deployment of tank destroyers was to the Philippines in December 1941 when 50 T12 75mm GMCs were sent to provide fire support for the Provisional Tank Group. They served with distinction in the 1941-42 fighting, but could do little to overcome the other problems suffered by the US Army in the campaign against Japan.



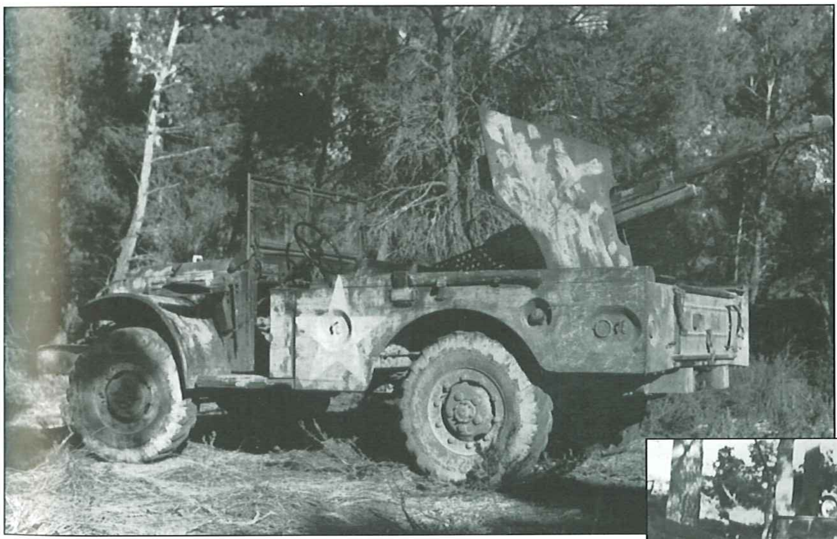


The combat debut of the M6 37mm GMC was in North Africa, where it proved to be a dismal failure. Its 37mm gun was inadequate against German tanks of the period, and it lacked sufficient protection for its crew. This particular vehicle has had an additional .30 cal. machine gun added on the right side of the vehicle.

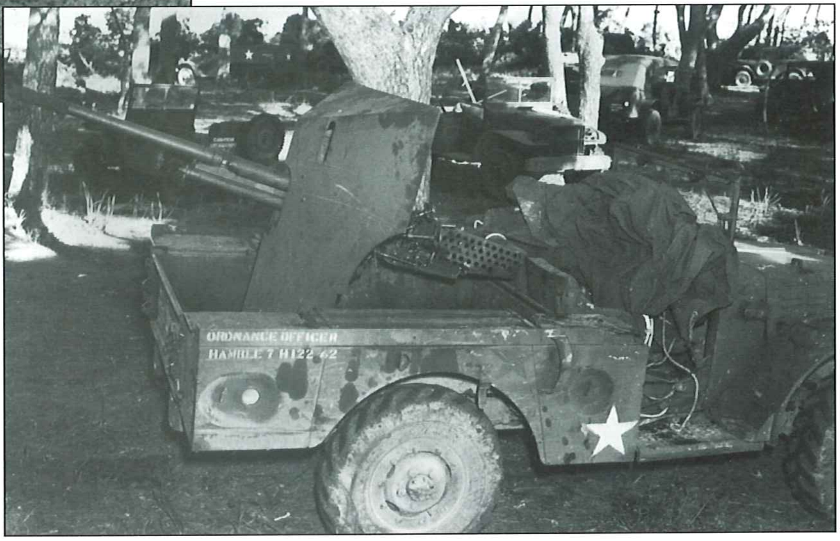
A T12 75mm GMC abandoned in the Philippines due to an engine problem. Although originally intended for anti-tank defense, in the Philippines fighting in 1941-42, the T12 75mm GMCs were more commonly used for direct fire support against non-armored targets. The Japanese Army recovered several of these vehicles and impressed them into service for occupation duty.



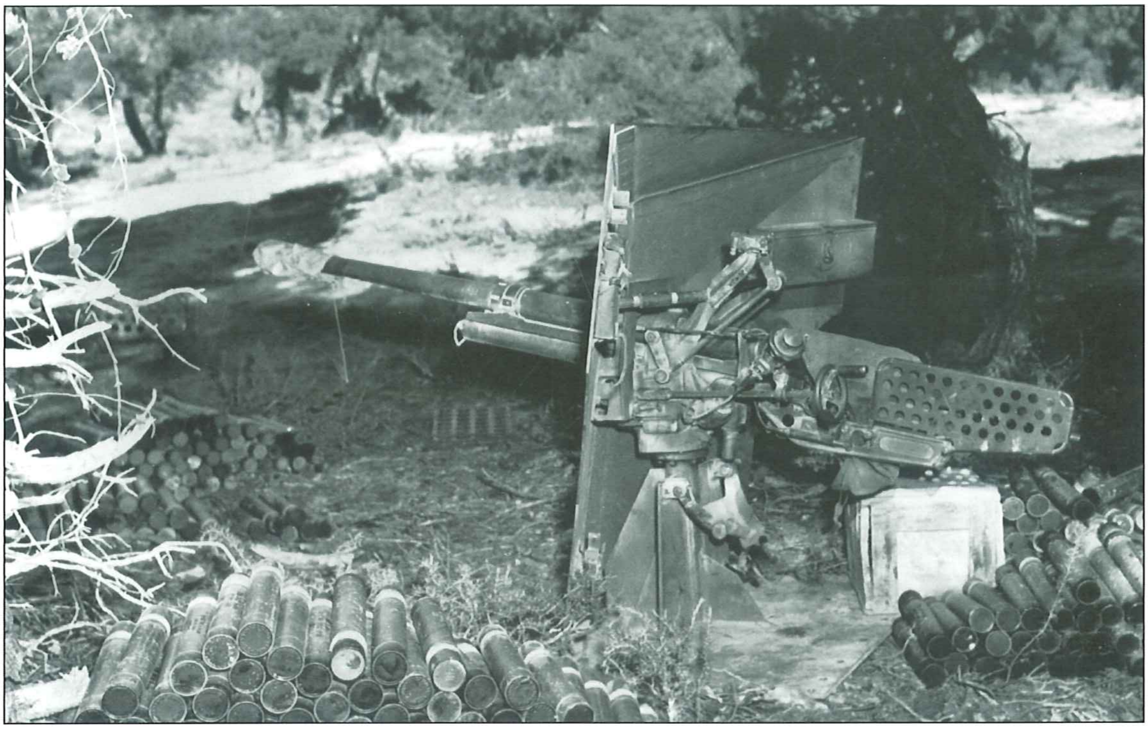
A M6 37mm GMC in action in Tunisia in 1943, using cactus for camouflage. Like many US Army vehicles, it has had an improvised camouflage applied with local mud. Note also the yellow star, the standard US Army armored marking during the North African campaign. This vehicle has had additional stowage racks added to the rear, and the crew has latched their store to the gun shield.



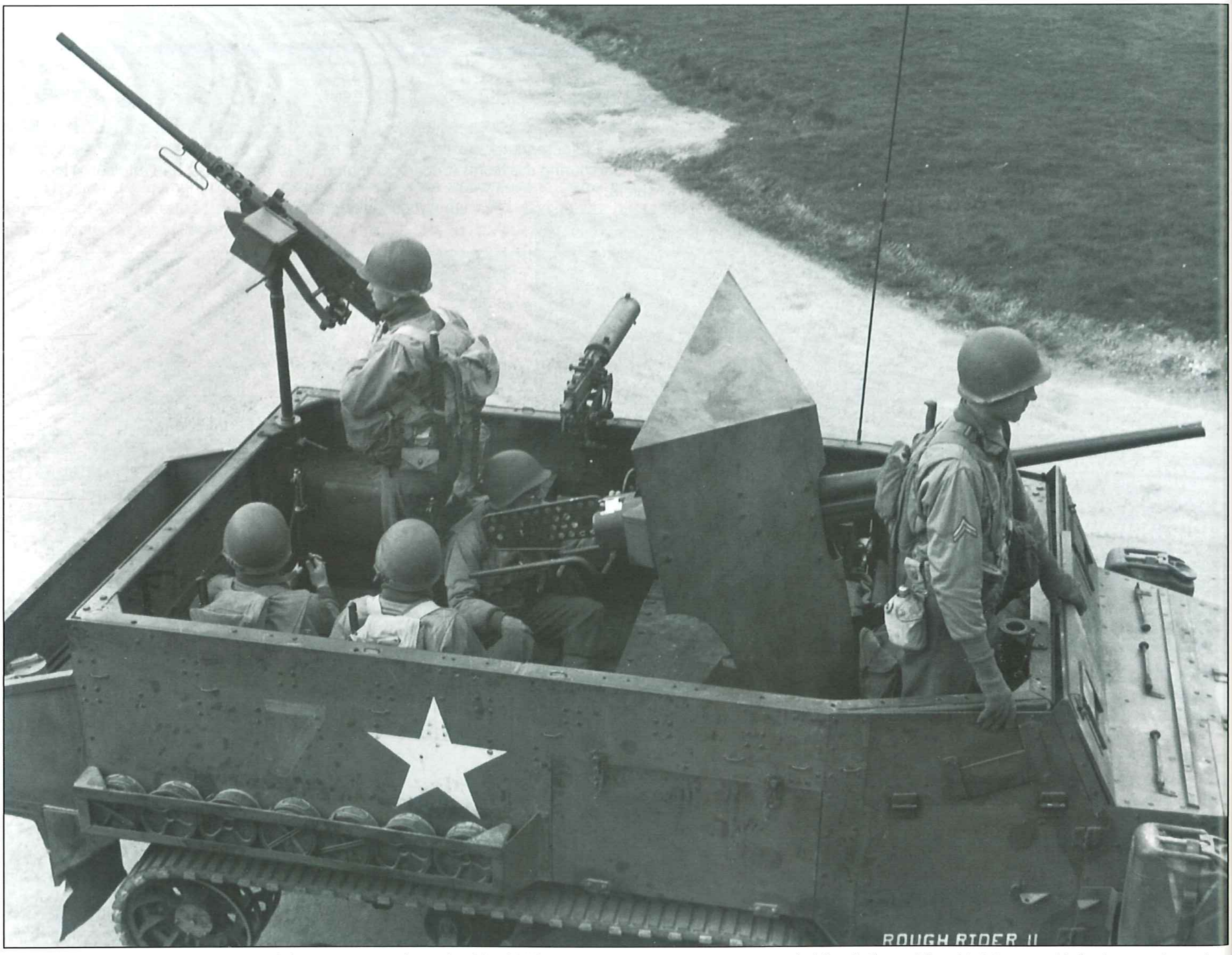
A M6 37mm GMC at the 78th Ordnance Co. depot in Tunisia during the fighting there in February 1943. The large national star marking has been covered with mud for camouflage as has most of the rest of the vehicle. After several months of fighting, the M6 37mm GMC had proven inadequate, and many were withdrawn from service.



A M6 37mm GMC being used by an Ordnance Section in March 1943 at Kouba, near Algiers. This provides good detail of the configuration of the gunshield and rear fighting compartment.

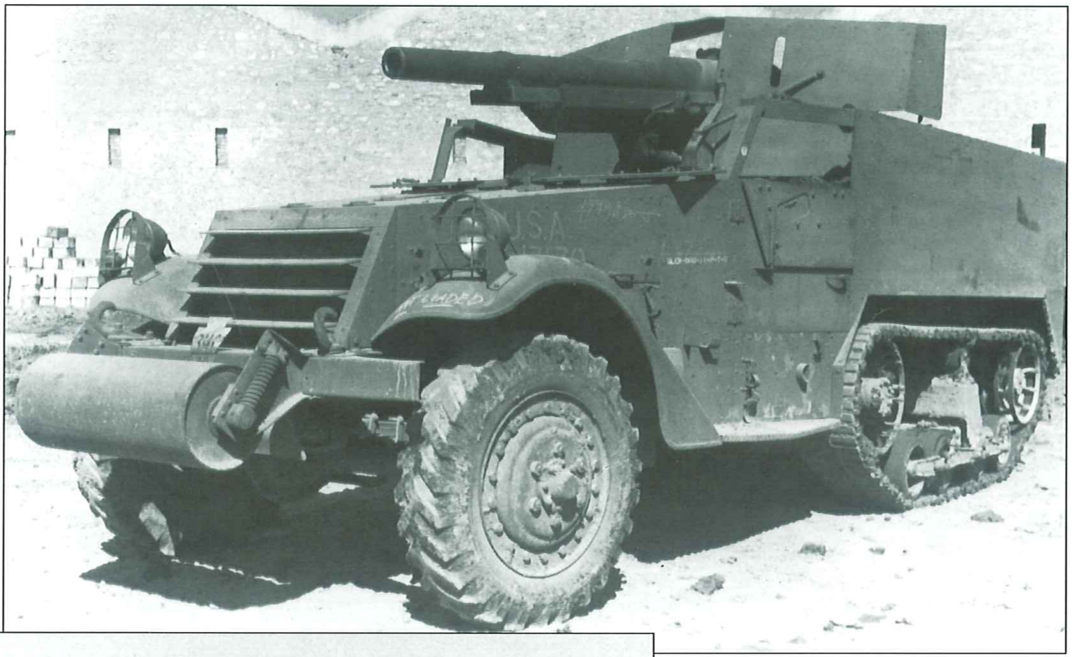


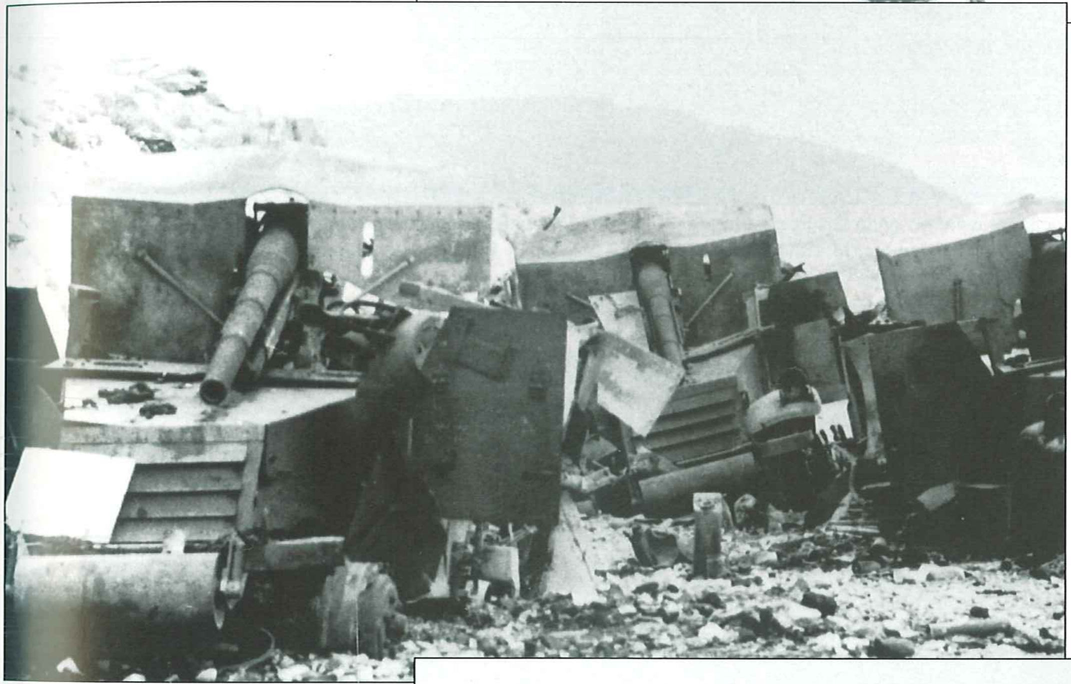
Frustration over the poor performance of the M6 37mm GMC in Tunisia led some units to dismount the gun and convert the vehicle back into a 3/4 ton weapons carrier. This view of the dismounted gun provides good detail of the configuration of the gun mounting.



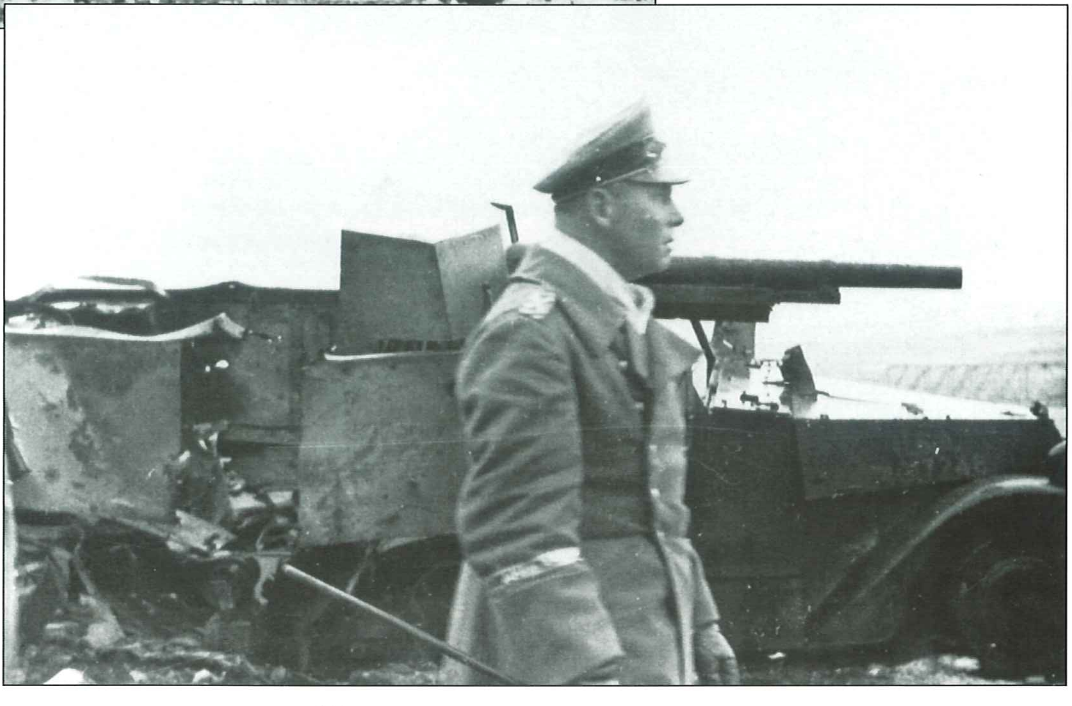
Some units which dismounted the 37mm gun from the M6 GMCs remounted them on a more suitable platform. The 41st Armored Infantry used surplus 37mm gun mounts to uparm some of their M2 Half-Tracks. These were not used in the tank destroyer role, but rather were used by the infantry to provide more firepower.

A M3 75mm GMC in North Africa in early 1943. The production vehicles differed from the T12 pilots in many details, most notably the new and more protective gun shield. Other detail differences were the scuff rings on the front tires, a common upgrade on half-tracks in 1942.

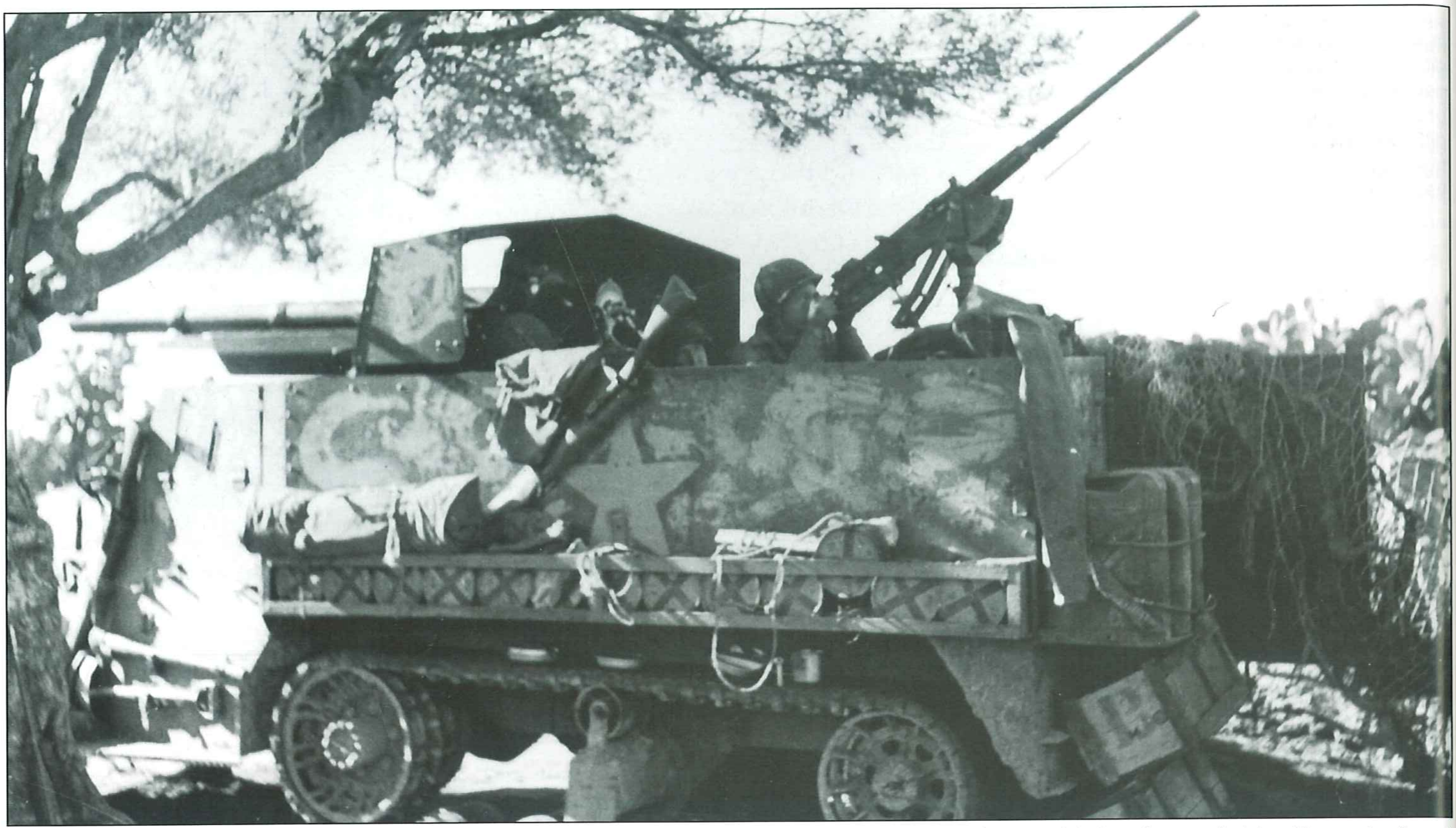




The combat debut of the M3 75mm GMC was less than auspicious as is attested to by this photo of several knocked out during the fighting near Kasserine Pass in 1943. The early US Army defeats had more to do with lack of experience than with equipment failings, although the M3 75mm GMC was roundly criticized for its lack of overhead protection.

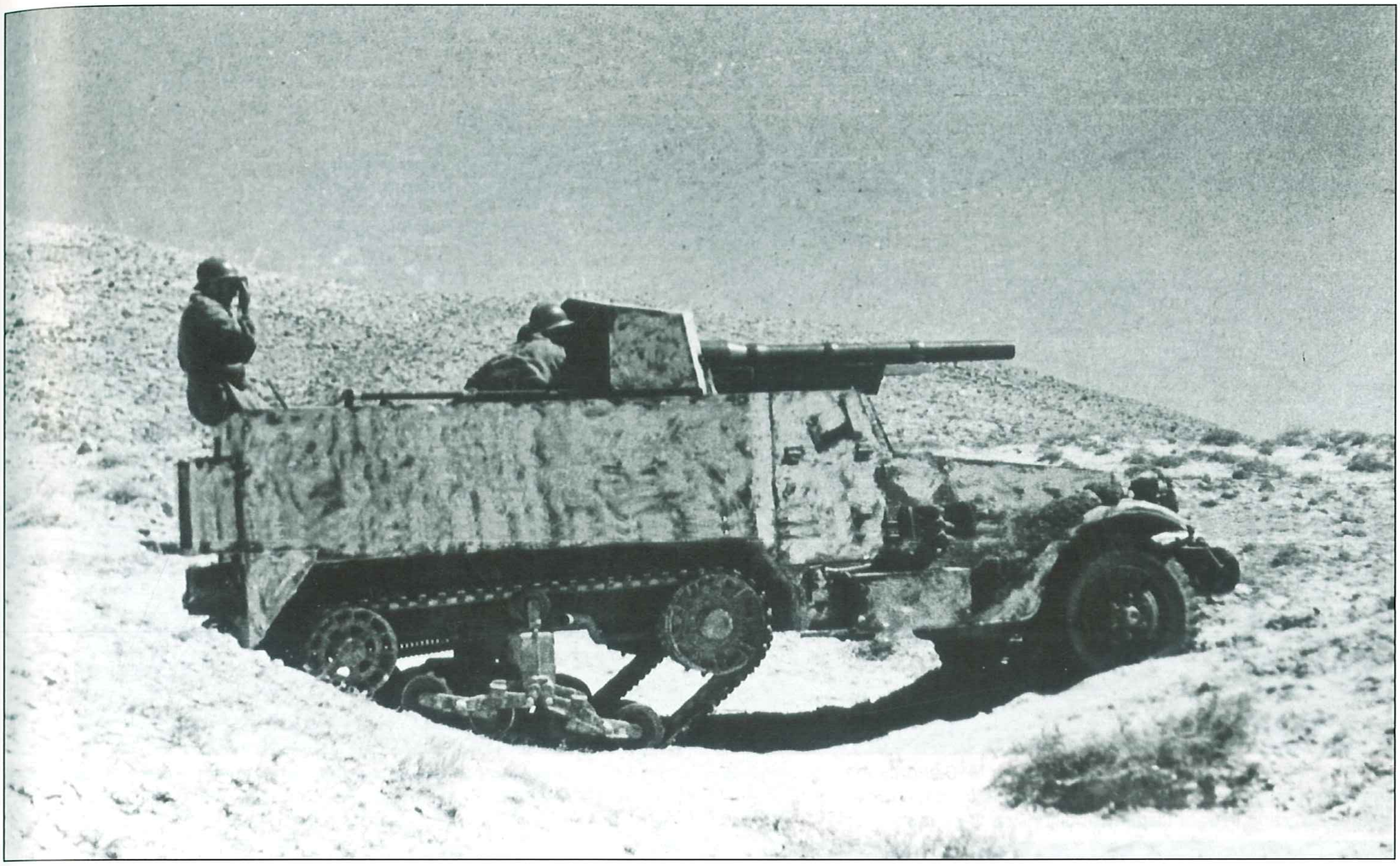


"The Desert Fox" Gen. Erwin Rommel inspects several vehicles from a US Army tank destroyer battalion knocked out during the fighting around Kasserine Pass. The tank destroyers were not used as intended during the fighting, often broken up into small subunits to provide disjointed fire support for the beleaguered infantry.

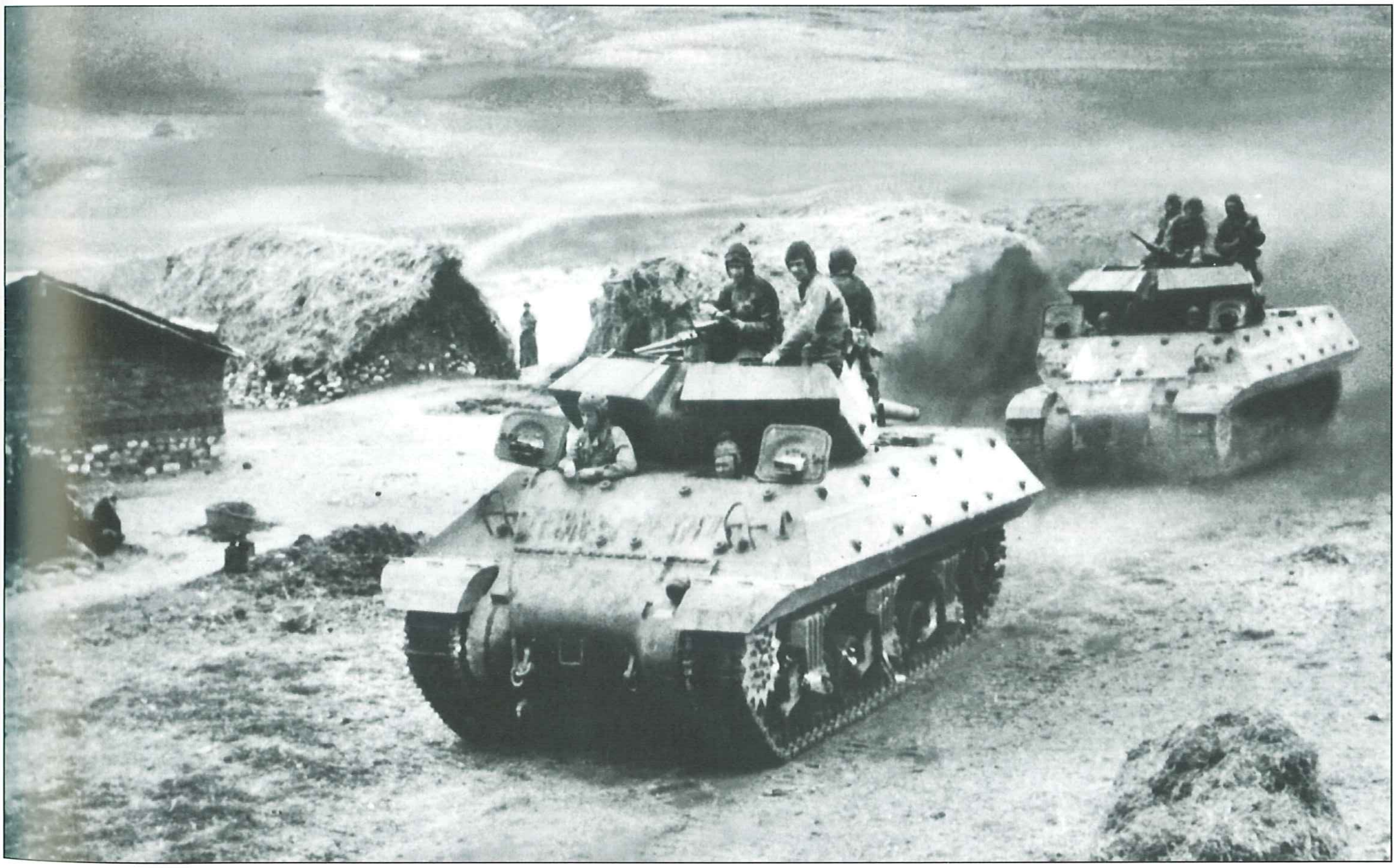


The M3 75mm GMC proved to be a functional weapon once US troops acquired more experience. This vehicle has the usual style of improvised mud camouflage typical of the Tunisian campaign. The pintle mounting for the M2 Browning .50 cal. heavy machine gun was standard for anti-aircraft defense, though it was not always fitted. This particular vehicle has a mine rack fitted along the side.

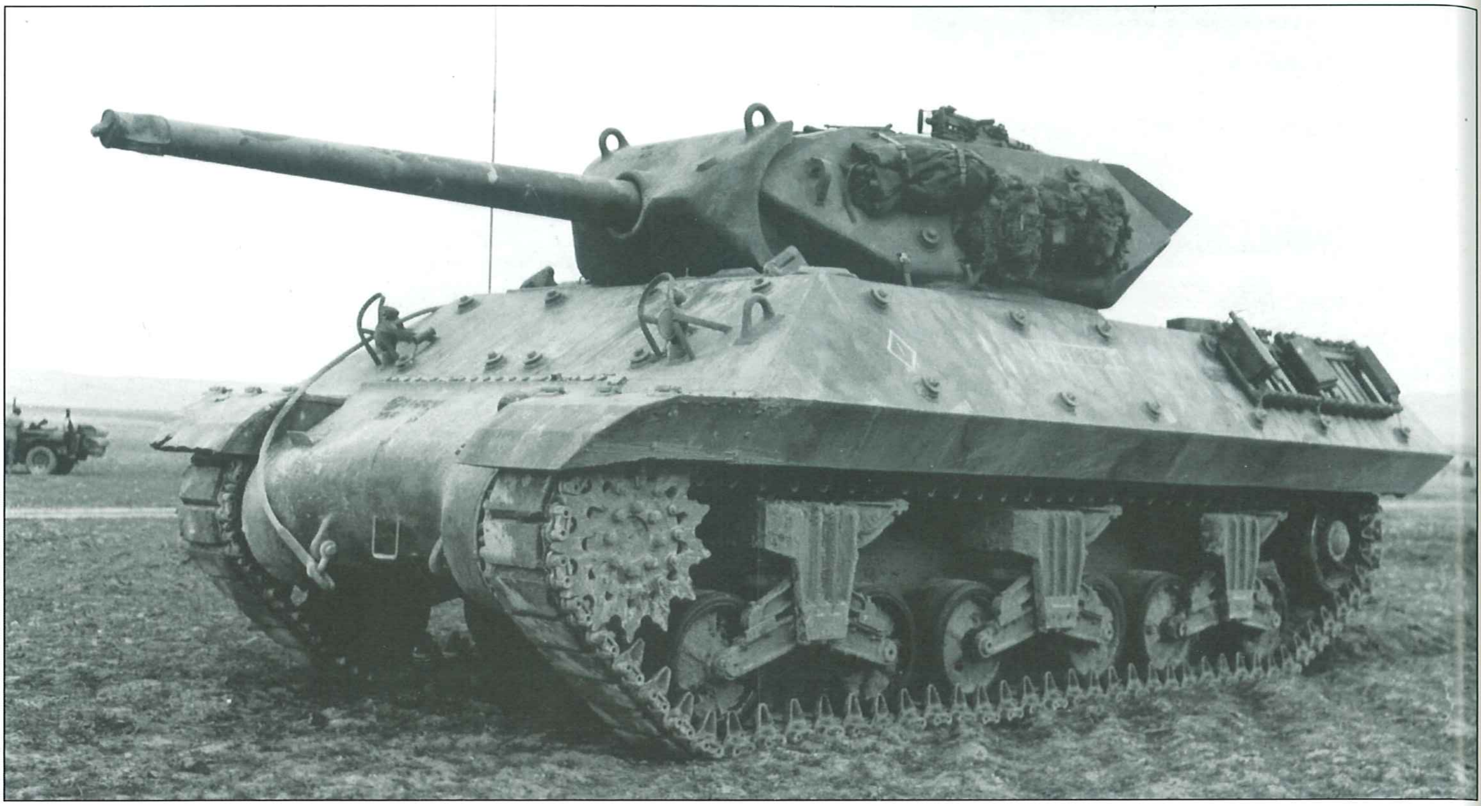
The command half-track of Capt. Paulick of the 601st Tank Battalion serves as the backdrop for a discussion with Lt. Gioia on 23 March 1943. In the background is one of the unit's M3 75mm GMCs. That day, the battalion played a crucial role in repulsing a German tank attack against the 1st Infantry Division, though taking heavy casualties in the process. It was one of the few occasions that tank destroyers fought together in a coherent group per their doctrine.



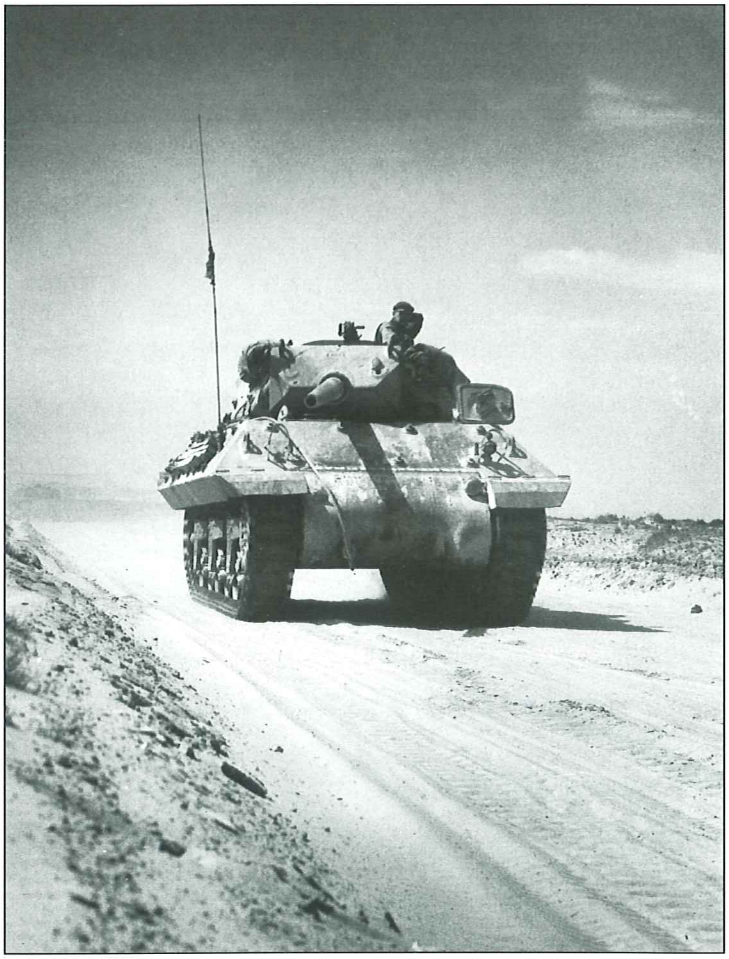
A good example of the style of improvised camouflage used on M3 75mm GMC tank destroyers during the Tunisian fighting; on this vehicle, the national markings have been completely covered.



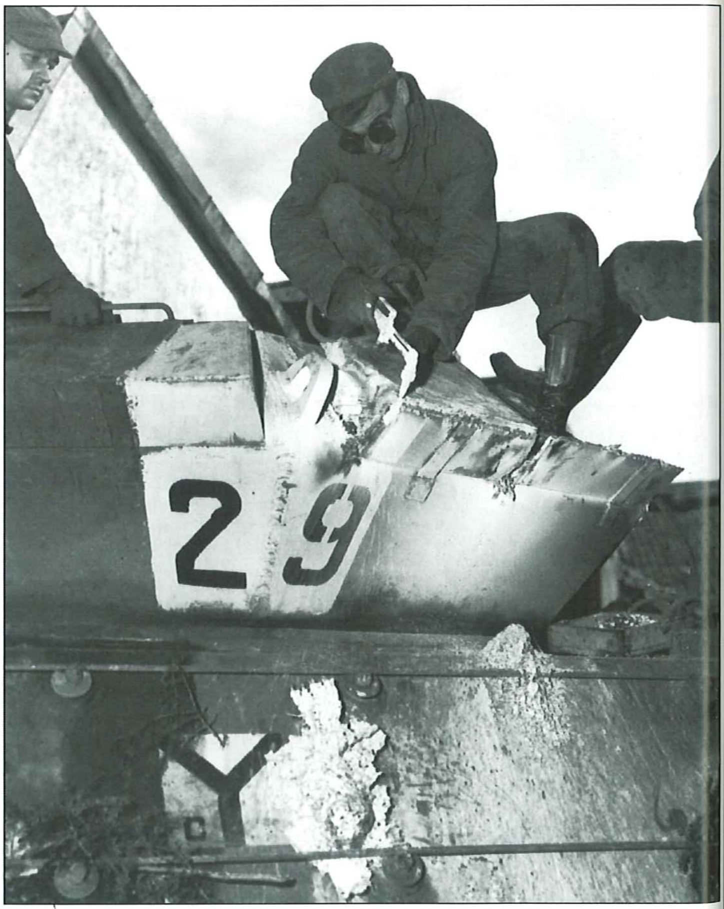
The M10 3in. GMC first made its debut in the Tunisian campaign in 1943, serving with the 899th Tank Destroyer Battalion. These vehicles are moving into position, and have their turrets pointed rearward. In this configuration, the photo gives a good view of the early pattern turret counterweights used on the initial production batches of M10s. The large bolts were designed to attach special appliqué armor, but this armor was seldom if ever actually fitted in combat.



A good overview of an early production M10 shortly after its delivery in Oran, Morocco in March 1943. Once again, the small turret counterweight at the rear of the turret makes it clear that this is from the original production batch. The racks on the hull side are for track grousers that would be attached to improve traction in poor terrain conditions such as mud.

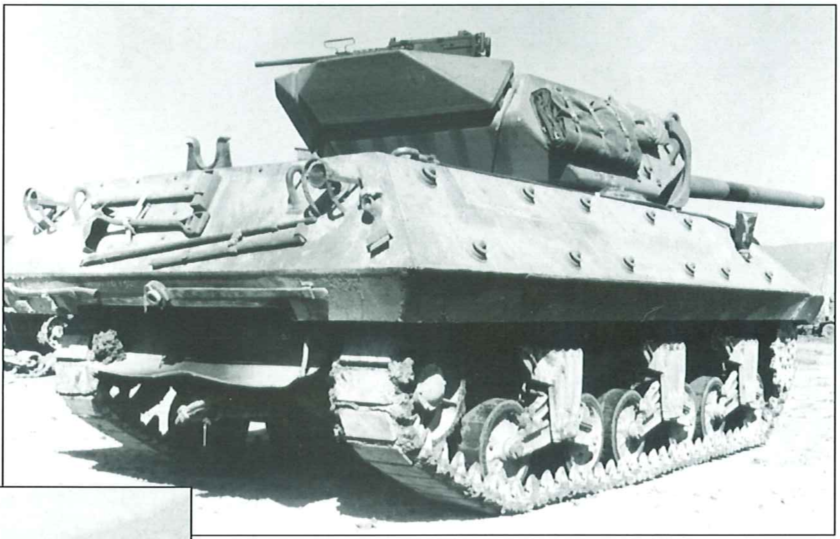


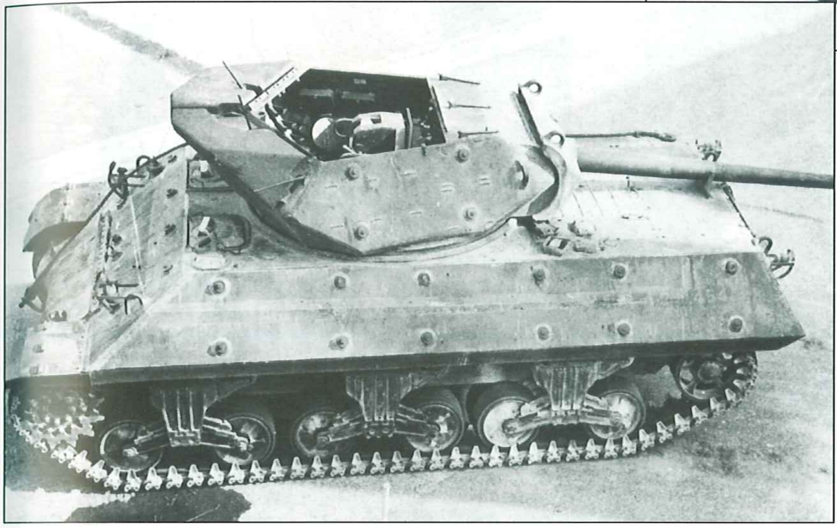
Another M10 3in. GMC of Co. A, 899th Tank Destroyer Battalion moves forward near Maknassy, Tunisia during fighting near there on 8 April 1943. The M10 was a far more satisfactory tank destroyer than the M3 75mm GMC, and most tank destroyer battalions had their M3 75mm GMCs replaced by M10s in 1943.



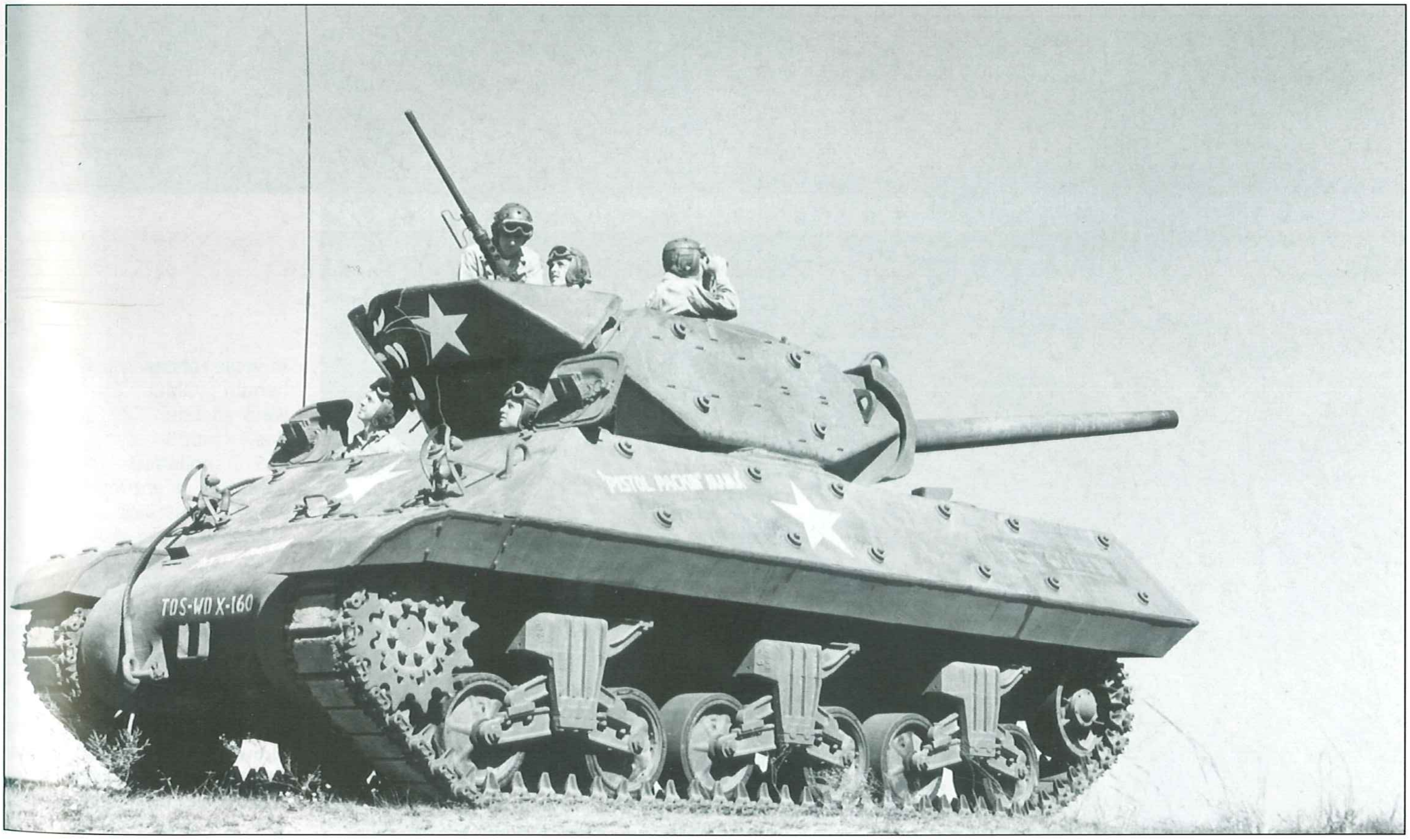
This closeup view shows a M10 3in. GMC being repaired. This gives a good view of the relatively small, early pattern turret counterweight which the welder is removing in this view, possibly to retrofit a later pattern counterweight. This is a M10 of the 601st Tank Destroyer Battalion and shows their characteristic markings: the yellow square with red Y on the hull side with the company letter (C), and the vehicle tactical number on the rear of the turret under the counterweight, painted on a white or yellow background.

This is a rear view of an intermediate production M10 3in. GMC in Tunisia in the spring of 1943. This version had a much larger V-shaped counterweight at the turret rear added in order to better balance the turret due to the heavy weight of the guns and turret frontal armor. This particular configuration was the most common style through most of 1943.

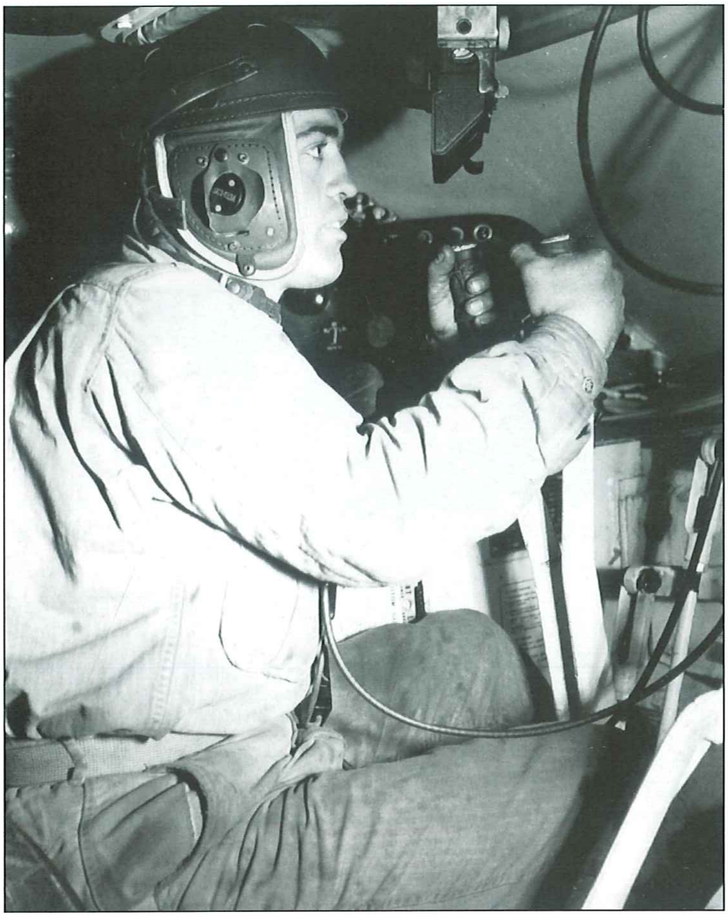




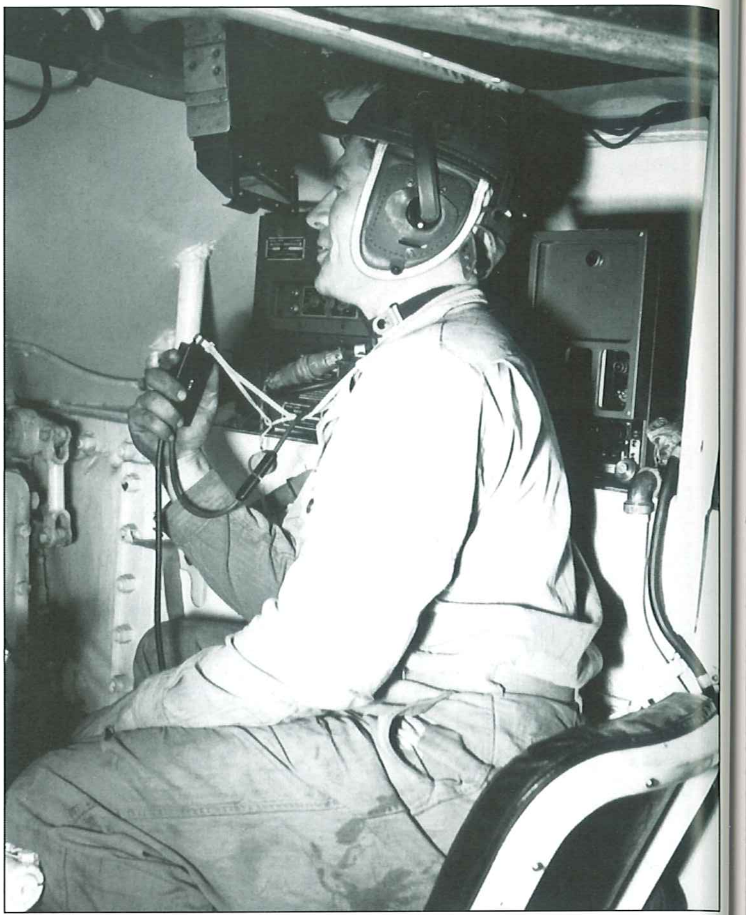
An overview of a M10 3in. GMC of the intermediate production type in travel configuration with the gun resting in the travel cradle. This overhead view provides a good view of the new pattern turret counterweights introduced in 1943. During the Tunisian campaign, many M10s had a 2 inch red band painted along the hull side which showed the wading depth for the crew when landing from amphibious vessels.



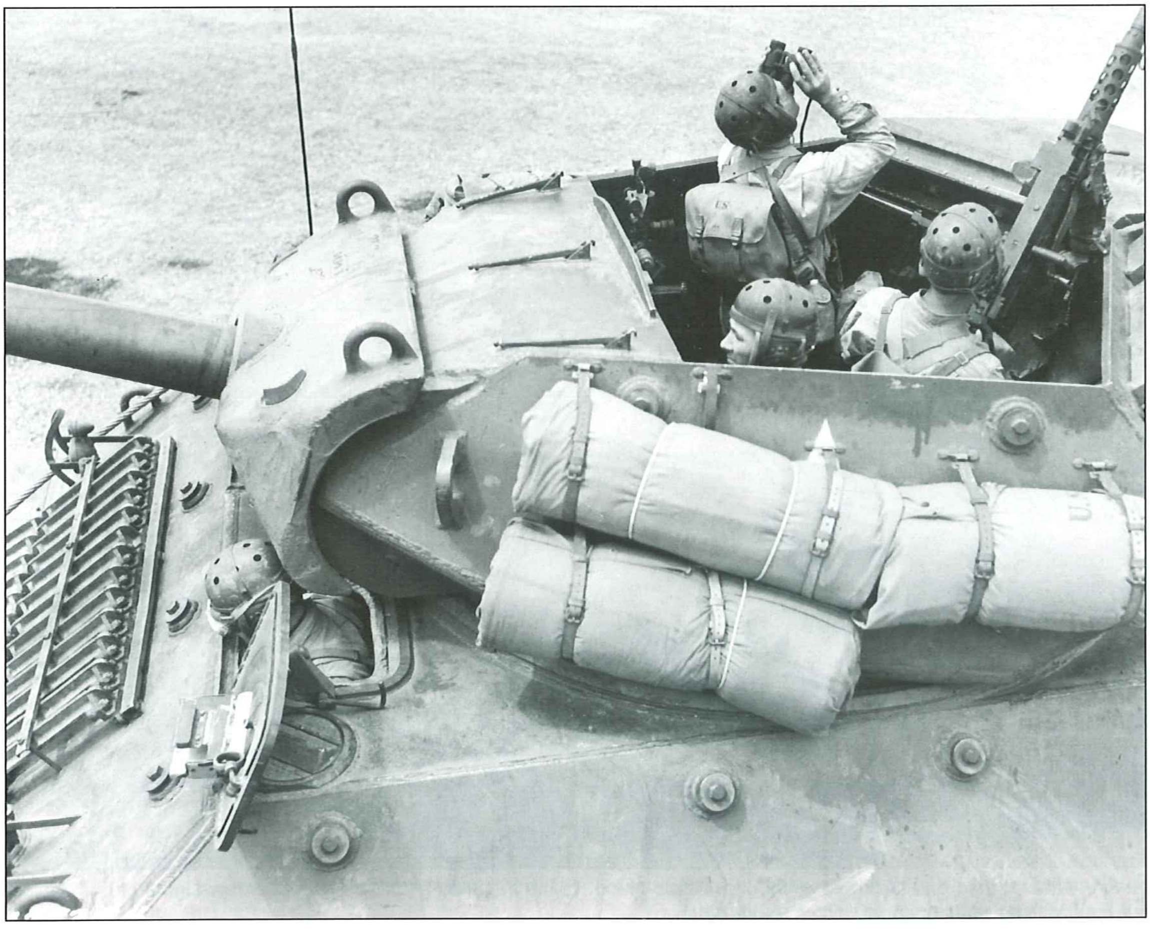
"Pistol Packin' Mama" is a M10 3in. GMC at the Tank Destroyer School at Camp Hood, Texas in 1943. The rear turret counterweights of this vehicle are colorfully marked with the panther insignia found on this branch's shoulder patch.



A view of the driver's position inside a M10 of the 632nd Tank Destroyer Battalion during training at Camp Gable in Queensland, Australia in 1943. The long shifter arms are typical of all M4 medium tanks and their derivatives. The forward interior of the M10 was usually painted white to make better use of limited lighting in this section of the vehicle.

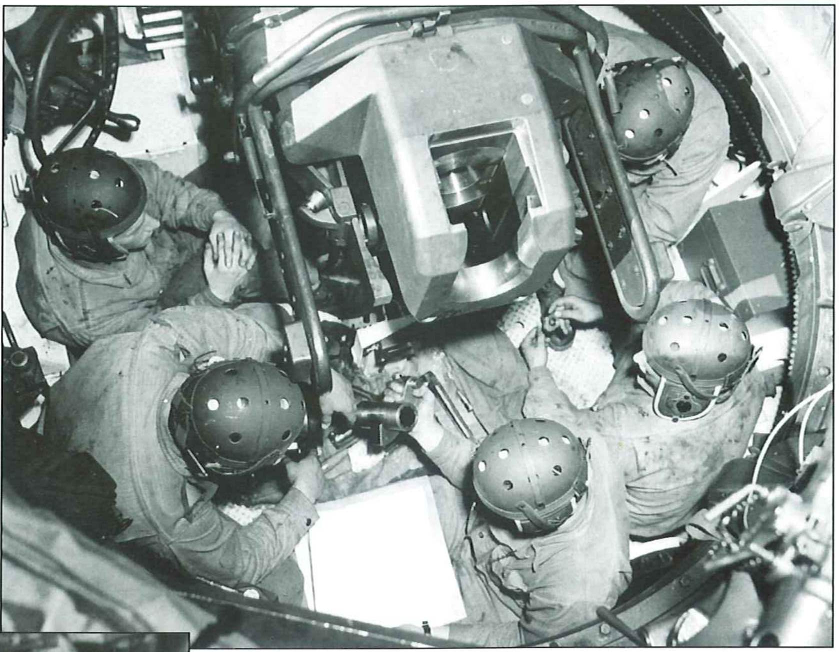


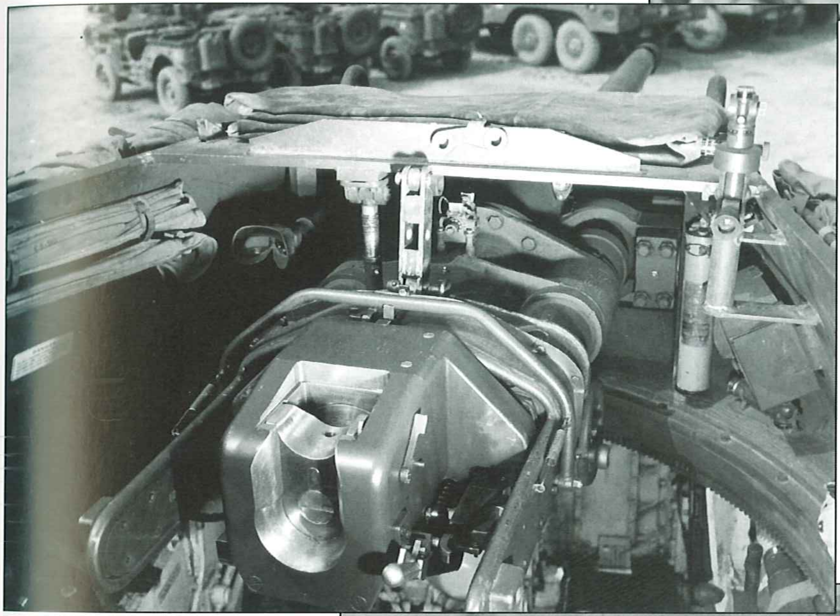
A view of the co-driver and radio operator of a M10 of the 632nd Tank Destroyer Battalion. Notice the radio in the hull sponson near his right shoulder. He is holding the clicker switch for the throat mike of the intercom system used to communicate over the radio or with other members of the crew.



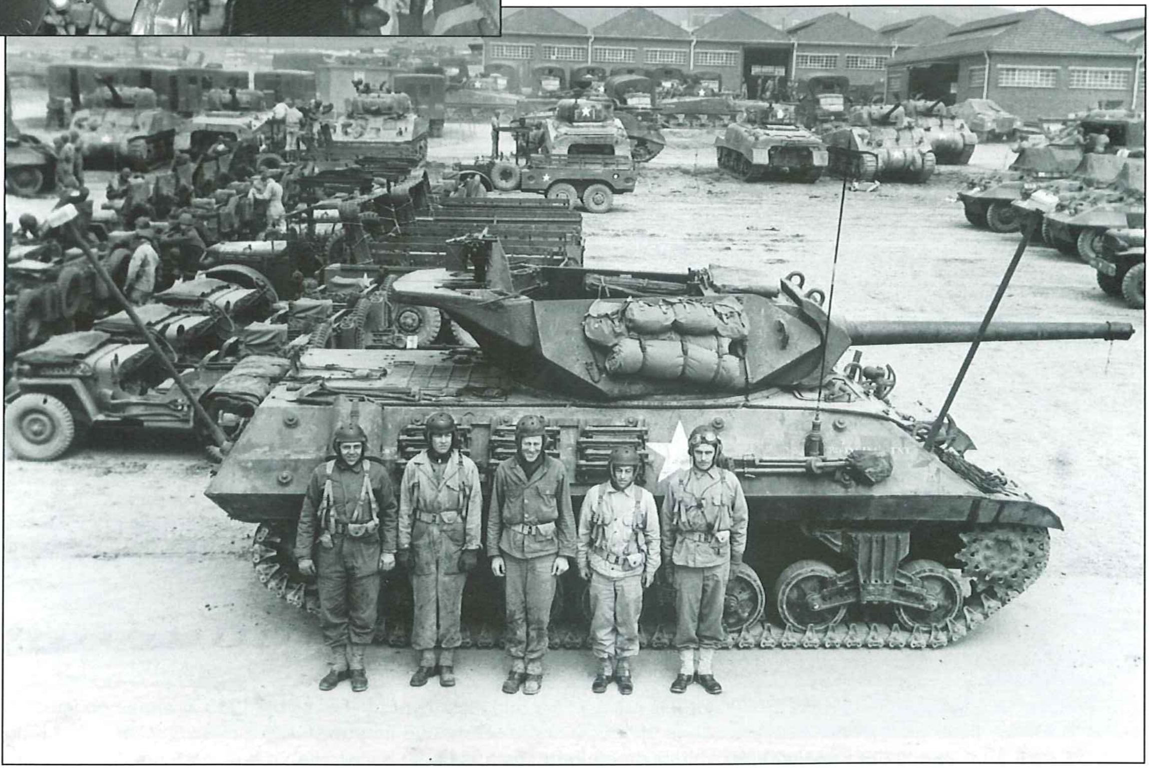
A good detail view of the turret of a M10 3in. GMC of the 632nd Tank Destroyer Battalion during anti-aircraft drill. The commander scans for targets while the loader mans the Browning M2 .50 cal. heavy machine gun. This view shows the official stowage pattern for the crew gear on the exterior of the turret, and the grouser stowage on the hull front.

A view from above the turret looking towards the turret floor during crew training in 1943 while the commander explains the use of the breech block crank held in his right hand. This provides a good view of details of the breech and turret rings. The standard football-style US tanker's helmets seen here were intended only to provide limited protection against concussions; they were not armored.



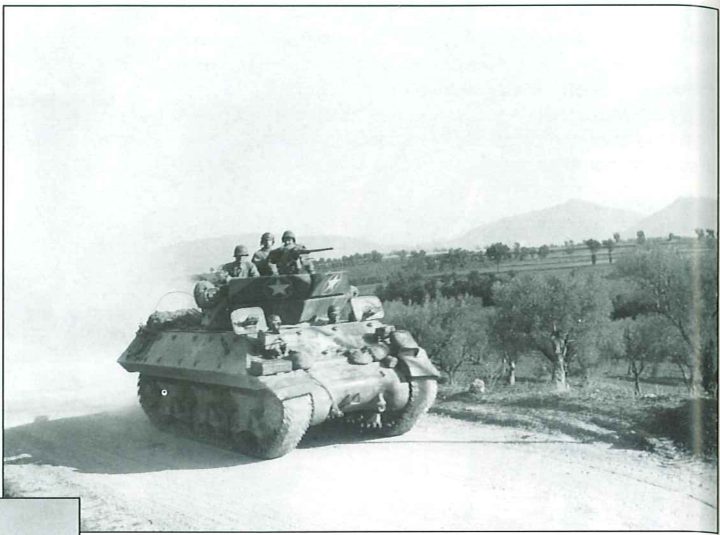


Another detail view of the M10 3in. GMC turret interior, in this case a late production vehicle. The device immediately above the gun breech is a travel lock used to keep the gun stationary when moving. The gunner sat in the left side of the turret, aiming through the telescopic sight evident in this view. The vehicle commander sat on the right side, with the loader standing behind him.

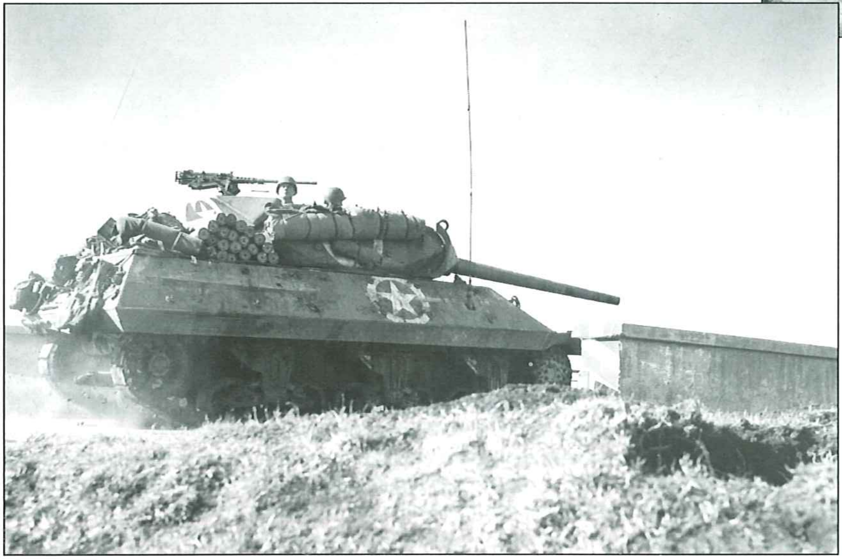


A good character study of a M10 3in. GMC, named "Bouncing TNT" and its crew from Co. B, 803rd Tank Destroyer Battalion, 2nd Armored Division in Cornwall, England in April 1944. This is one of the late production M10s that is fitted with the final "duck-bill" turret counterweights at the turret rear. An unusual feature on this vehicle is a set of large pipes on the four corners of the hull, presumably intended to support camouflage nets. This provides a good example of full, official stowage patterns, including the tripod for the .50 cal. machine gun on the hull side, and the turret rain tarp on the turret roof forward of the opening.

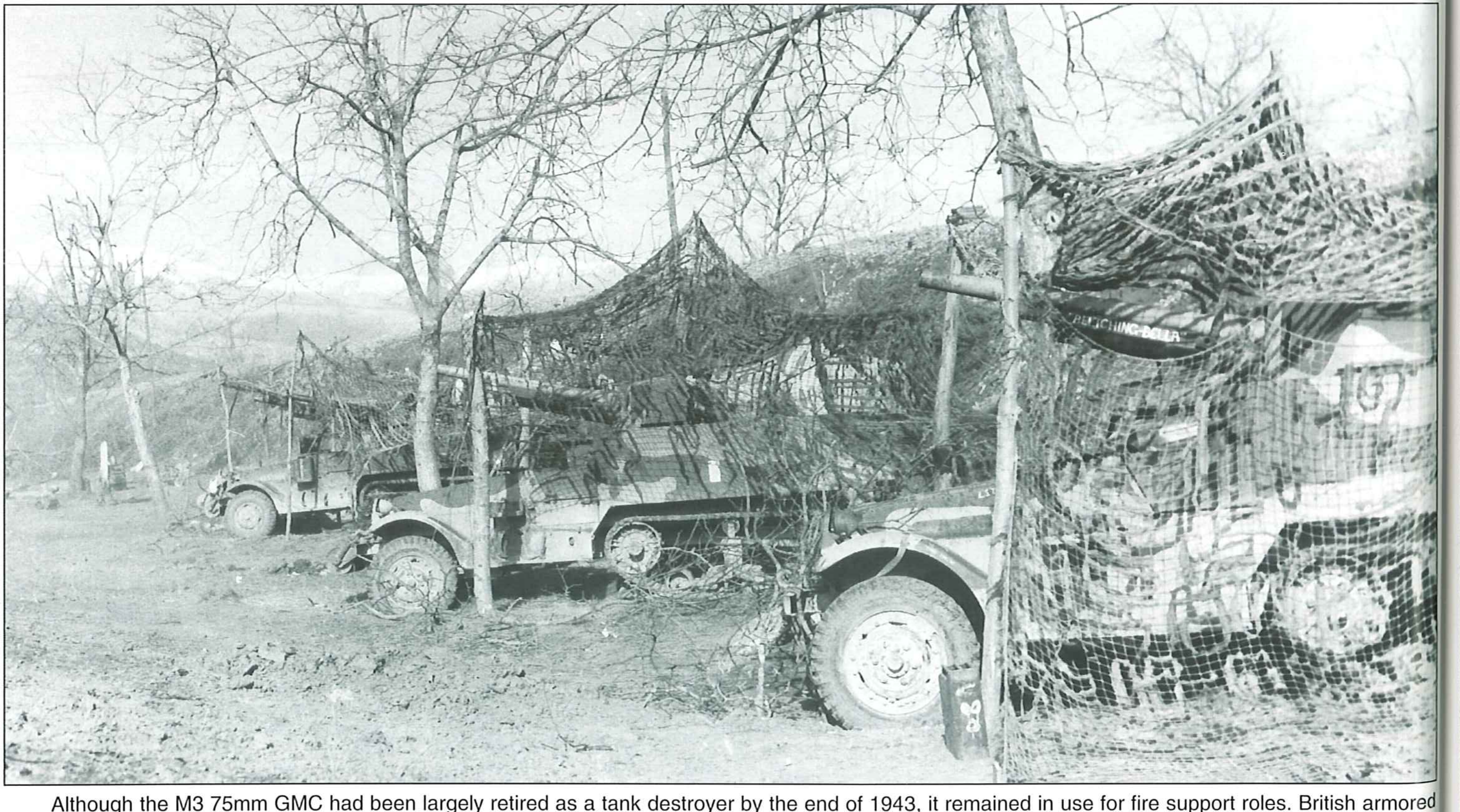
The Italian Campaign



The first large scale use of the M10 tank destroyer took place during the Italian campaign. Here, a M10 of the intermediate production type moves forward in the Cassino sector on 6 November 1943. It is marked with a white Allied star, with a thin yellow surround. These insignia variations were mainly attempts at trying to provide identification that would not be confused for a German cross; however the white circle used after the North African campaign was so conspicuous a target that some units tried to subdue it by painting it yellow.

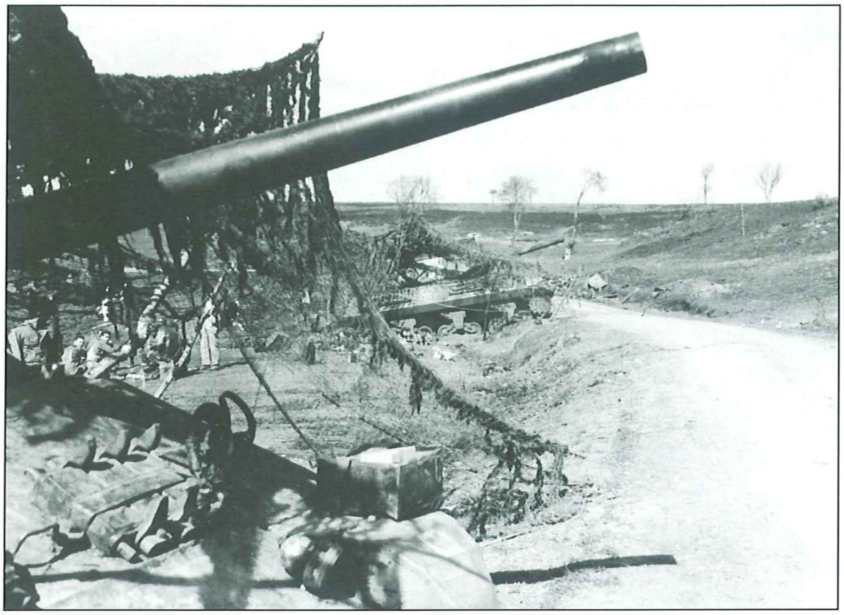


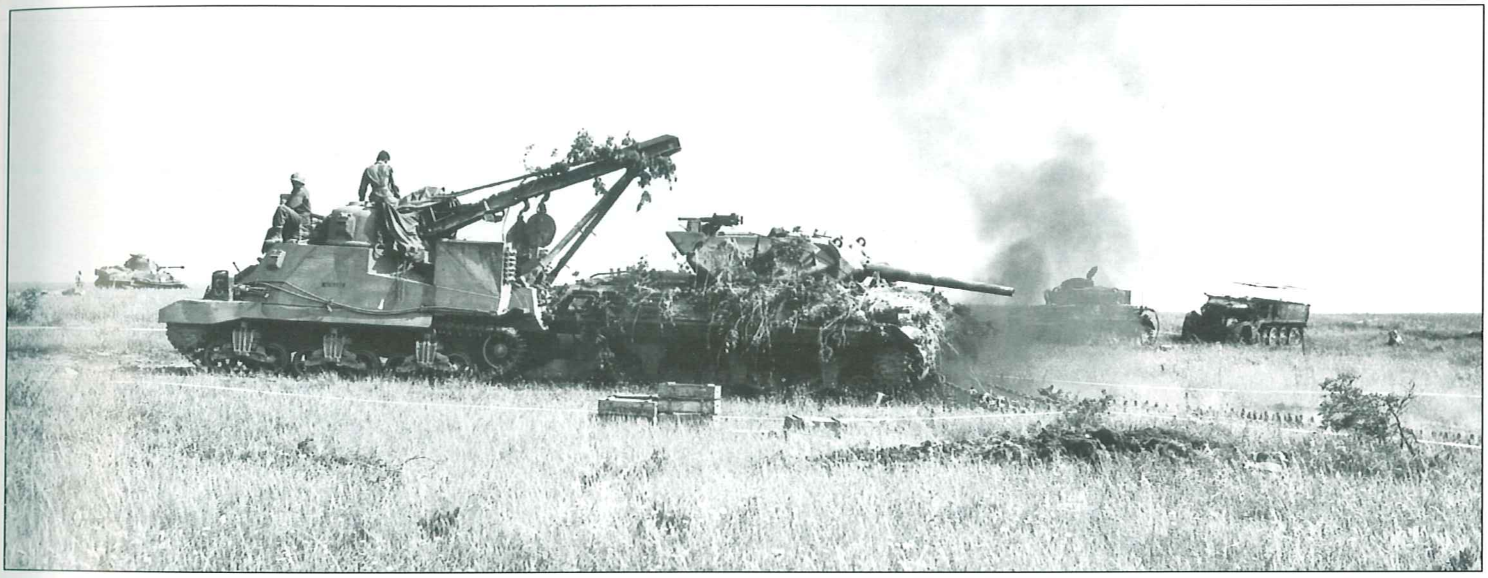
A M10 3in. GMC of the 601st Tank Destroyer Battalion in the Anzio beachhead area on 29 February 1944. This battalion had seen extensive combat on M3 75mm GMCs in North Africa, and converted to M10s afterwards. This vehicle appears to be preparing for an indirect fire mission, with large amounts of ammunition stacked like logs on the engine deck. Although such missions were contrary to Tank Destroyer doctrine, they were fairly common practice in the Italian theater where German armor was seldom encountered.



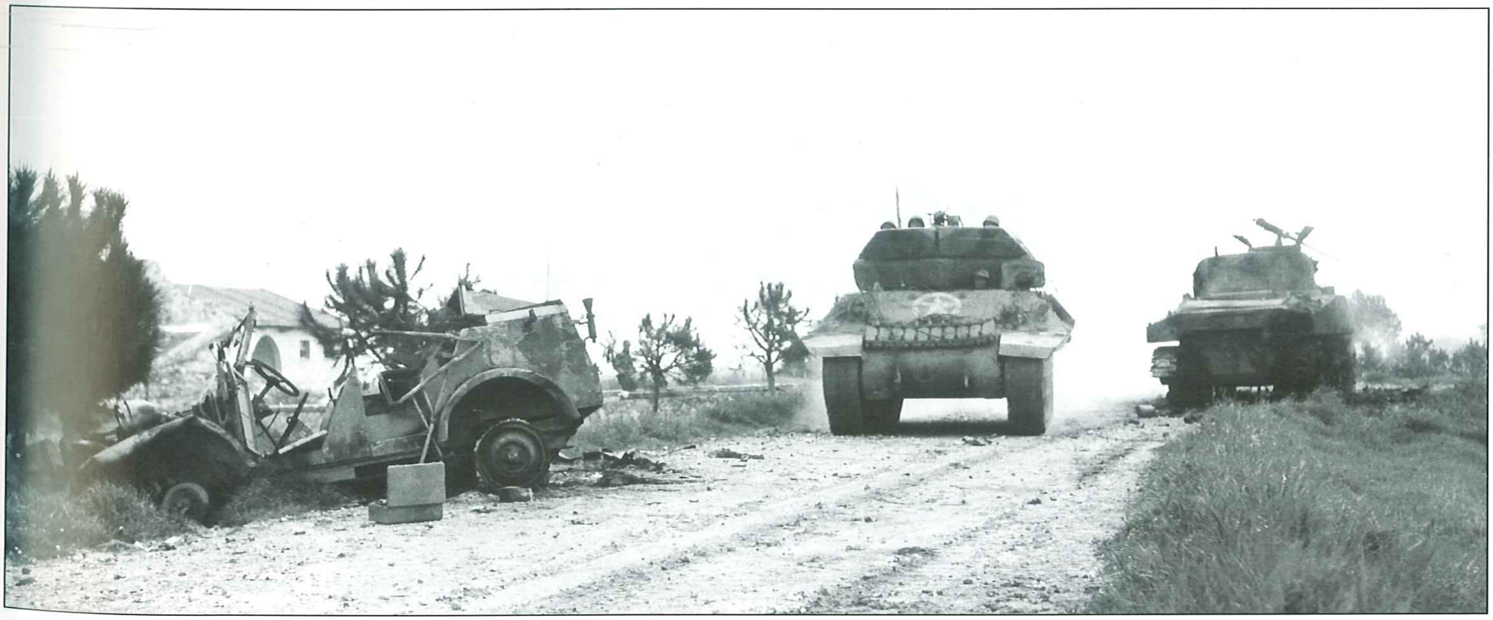
Although the M3 75mm GMC had been largely retired as a tank destroyer by the end of 1943, it remained in use for fire support roles. British armored car units in Italy used them in the heavy sections of troops to provide added firepower, like these vehicles of the King's Dragoon Guards, 23rd Armoured Brigade, near Mt. Cairo in the Cassino area of Italy on 20 February 1944.

M10 3in. GMCs of Co. C, 894th Tank Destroyer Battalion prepare for an artillery fire mission near Littoria, Italy on 18 March 1944. The M10 was not designed for such a role, and had a low maximum gun elevation. As a result, the crews would run the vehicles up embankments such as this road edge here, to gain a few extra degrees of elevation.

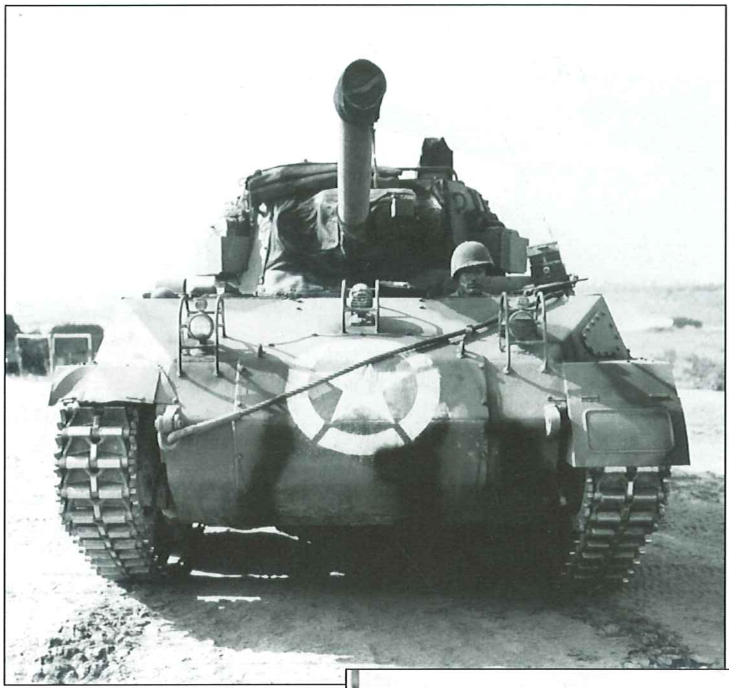




A T2 (M31) armored recovery vehicle from the 1st Ordnance Battalion recovers a M10 of the 701st Tank Destroyer Battalion (1st Armored Division) knocked out in fighting near Cisternatta, Italy on 25 May 1944 during the attempts to break out of the Anzio beach-head. The vehicle ran into a mine even though it was passing along a supposedly cleared lane as can be seen from the engineer tape along the ground. In the background is a German PzKpfw IV and half-track knocked out in earlier fighting.

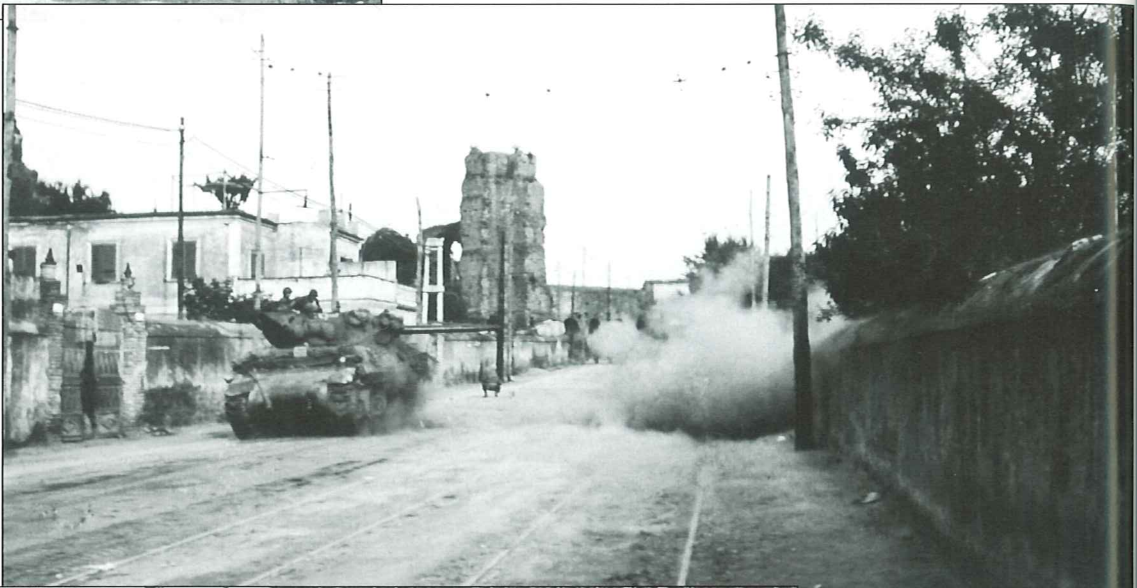


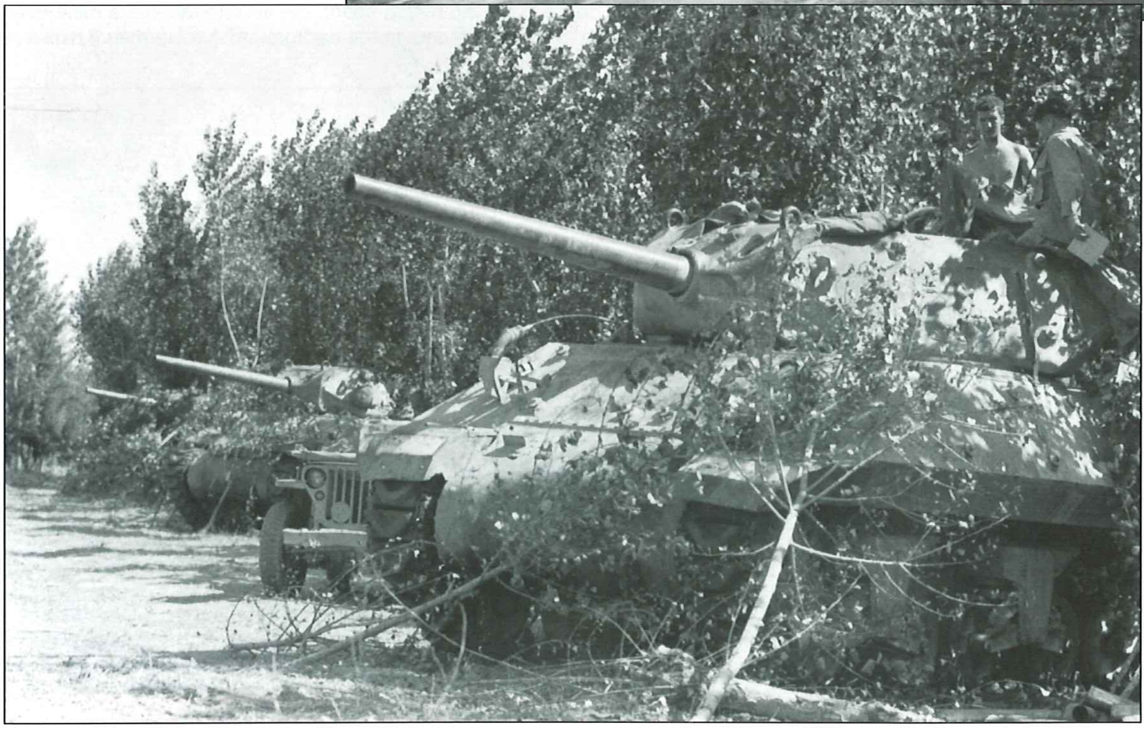
A M10 3in. GMC moves past a disabled M4 medium tank and a demolished German staff car during fighting along the Littoria highway on 1 April 1944.



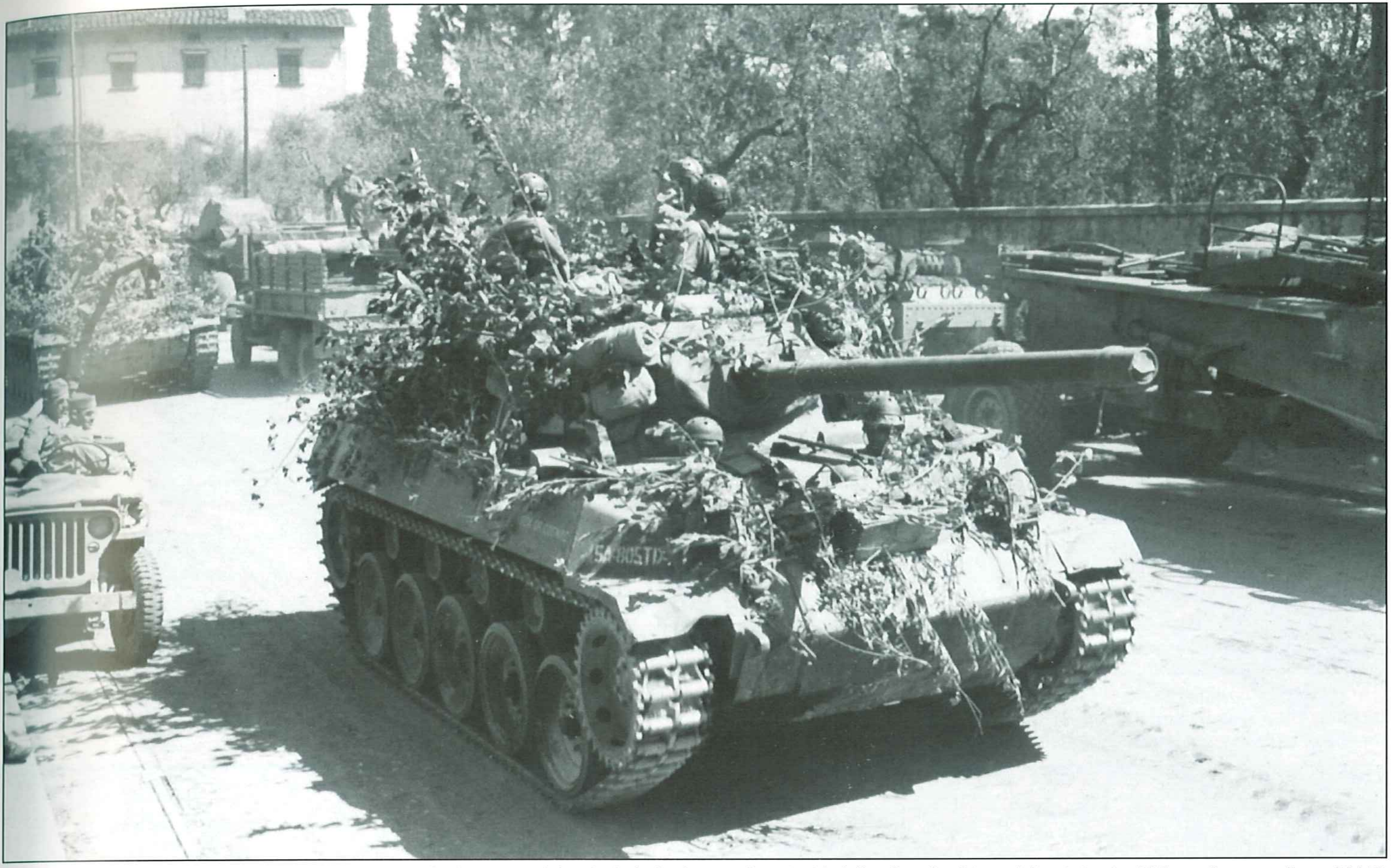
In May 1944, the US Army decided to send a pair of T70 76mm GMC pilot vehicles to Anzio for combat trials. They arrived at Anzio before the late May breakout attempts. Crew comments were favorable due to the high speed of the vehicles.

Following the breakout from the Anzio beach-head and the successful rupture of the German defensive line near Monte Cassino by British, Polish, and Commonwealth forces, the Allies began to move on Rome. Here a M10 3in. GMC fires point blank at a German position during fighting in the outskirts of Rome on 4 June 1944.

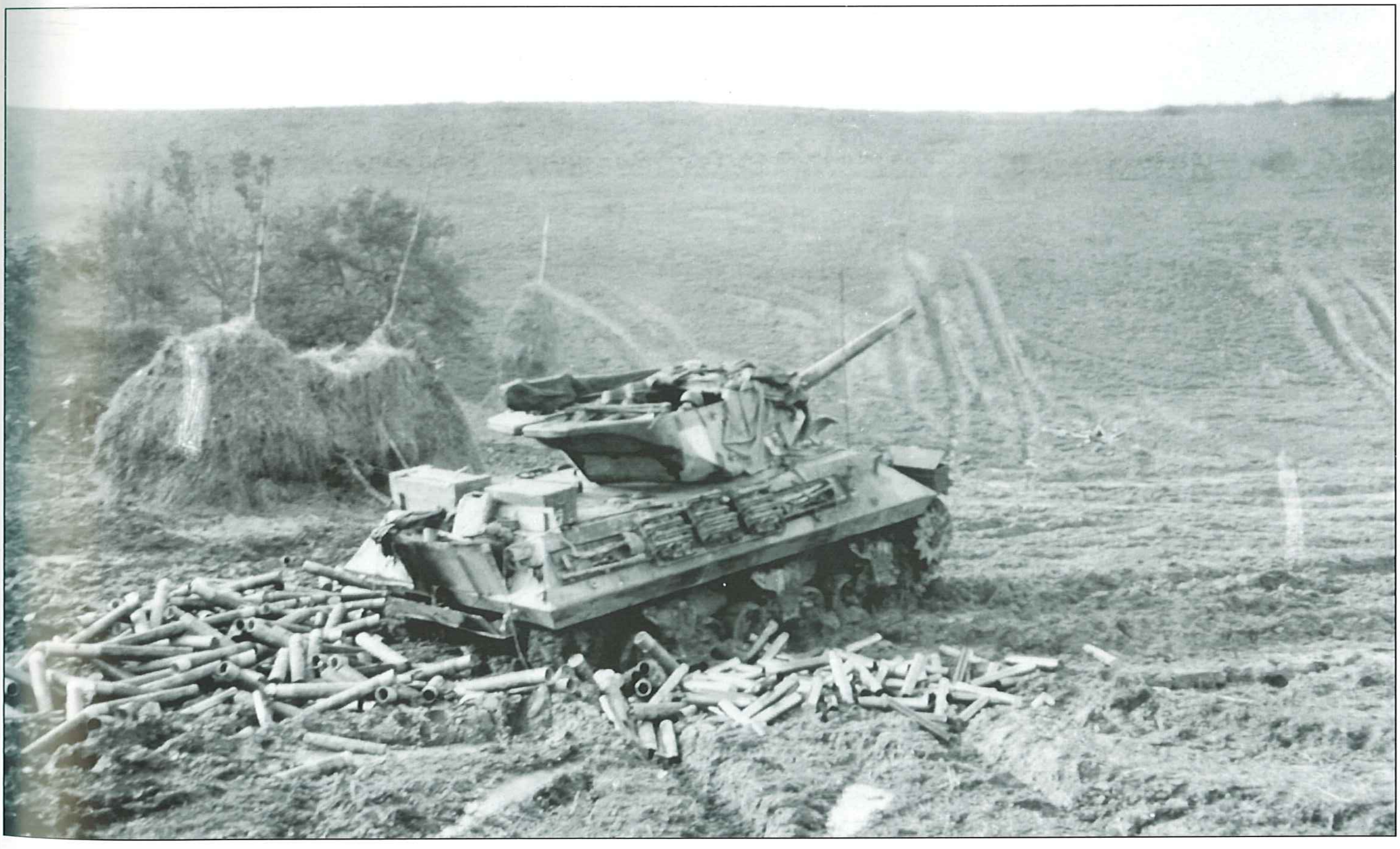




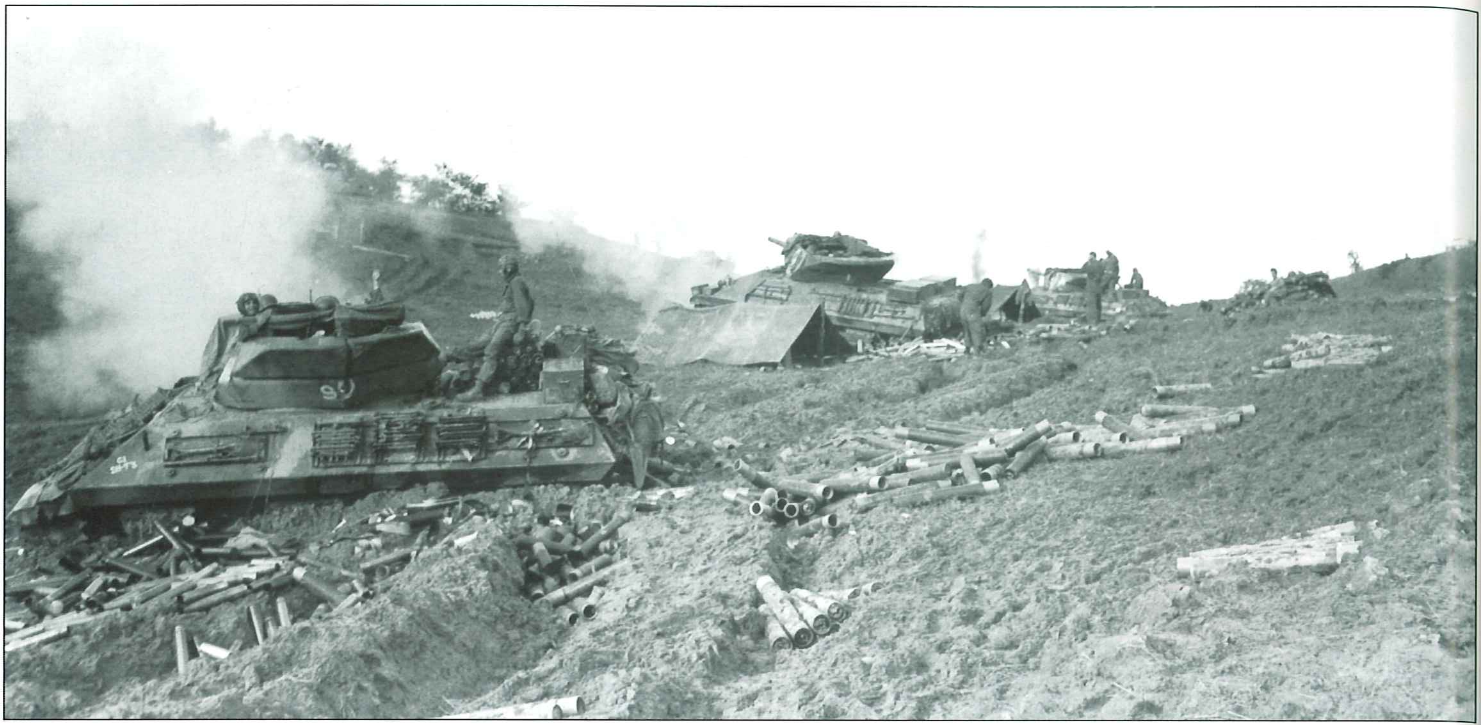
M10 3in. GMCs of the 701st Tank Destroyer Battalion prepare a fire mission near a small woods in Ponsacco, Italy on 25 August 1944 while providing indirect artillery fire support for 1st Armored Division operations near the Arno river.



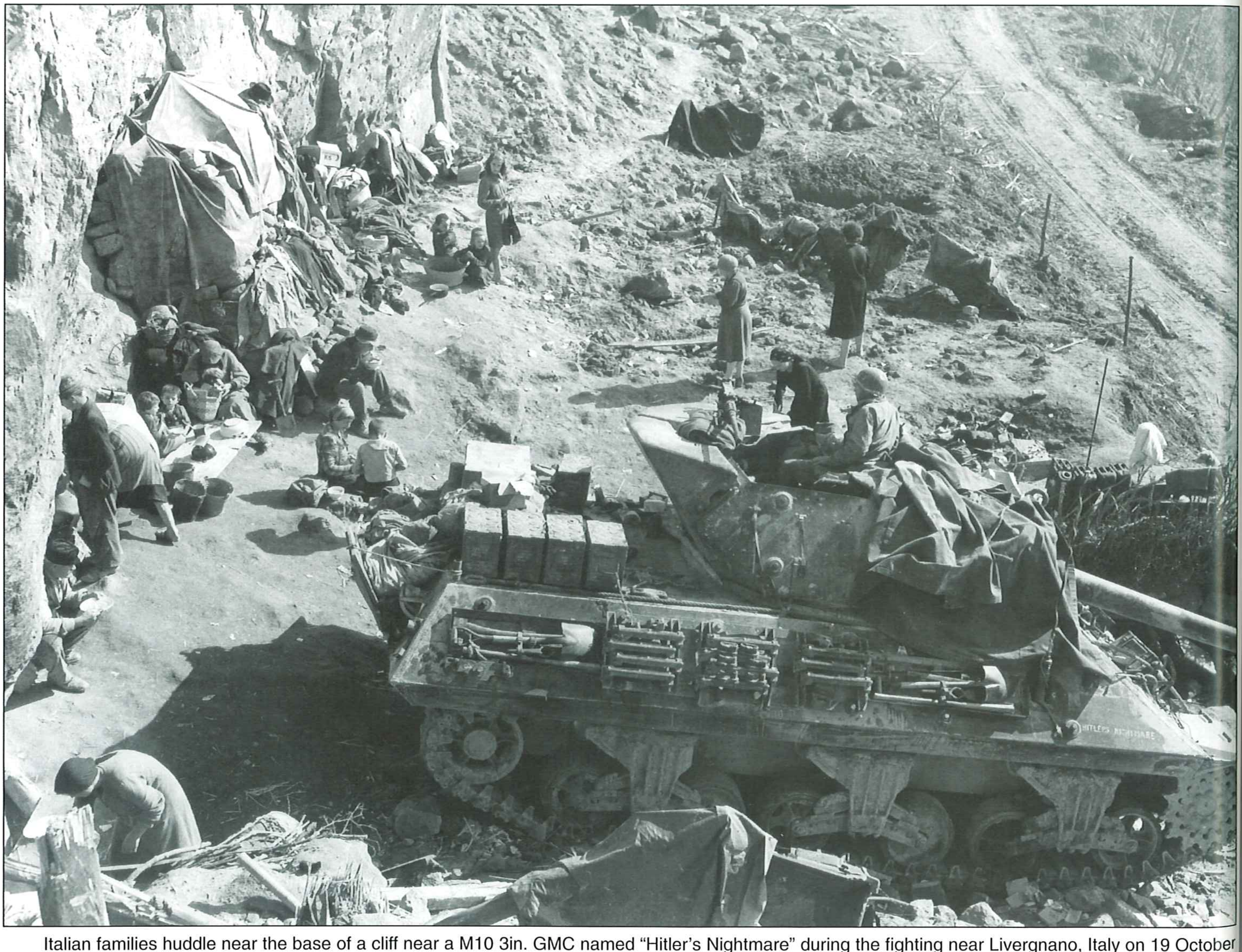
The first series production M18 76mm GMCs began arriving in Italy in September 1944, following the May trials at Anzio. This well camouflaged M18 Hellcat named "Crock of Cognac" served with the 805th Tank Destroyer Battalion in support of the 91st Division, US Fifth Army near Fonteloon, Italy on 11 September 1944.



The enormous number of spent shell casings and empty packing tubes around this late production M10 3in. GMC of the 804th Tank Destroyer Battalion attests to its use in artillery fire support role. Such missions became increasingly common in late 1944 for tank destroyer battalions, in part due to the lack of German tanks, but also due to the preference of local commanders for tanks in close-in fire support rather than the more vulnerable tank destroyers.

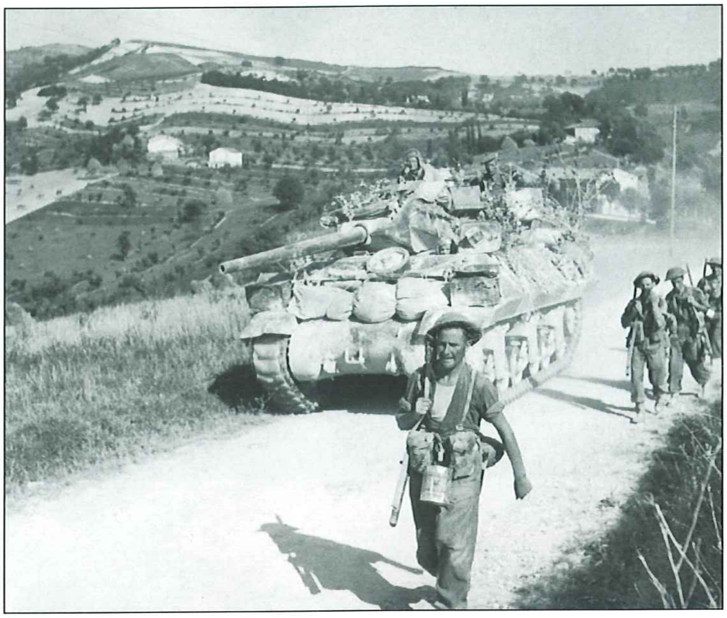


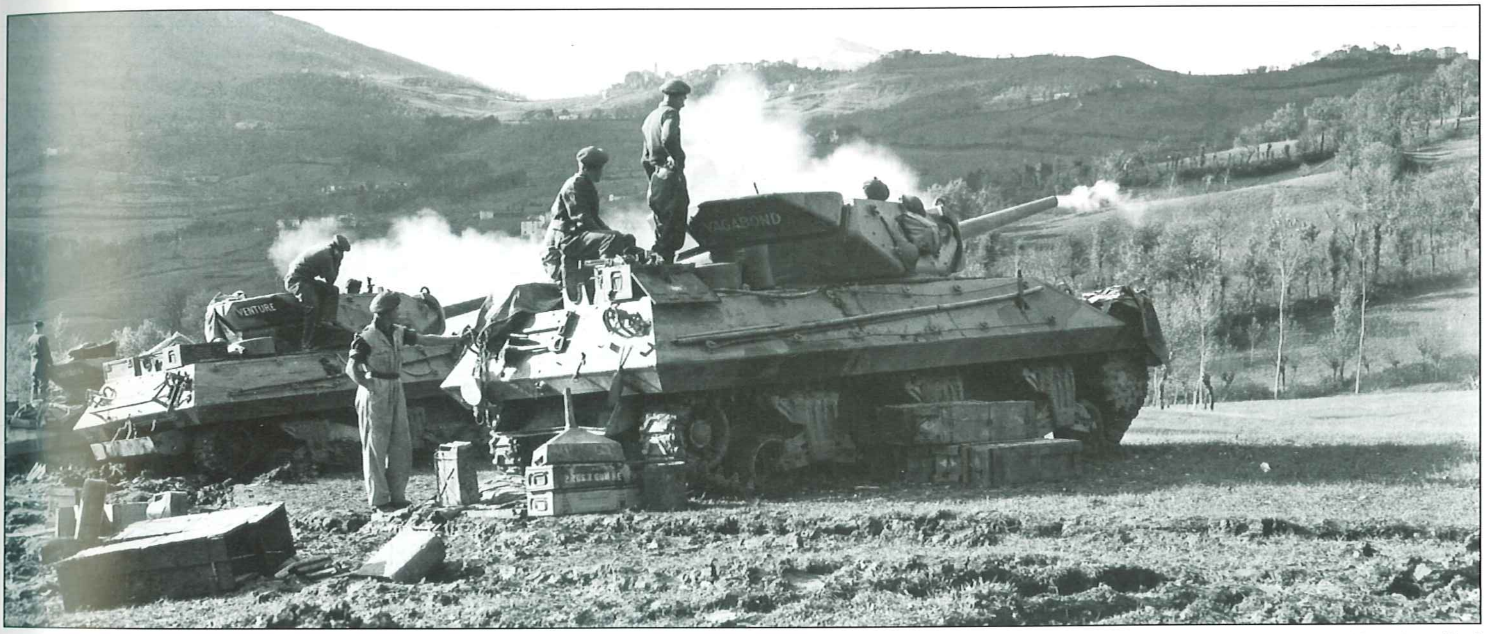
A view of another group of M10 3in. GMCs of Co. A, 804th Tank Destroyer Battalion in action a day later on 8 October 1944 at Sabbioni, Italy south of Loiano. The tubes behind the tank destroyers are black cardboard shipping tubes in which the ammunition was transported. To the left of the vehicles are heaps of expended brass casings from ammunition already fired.



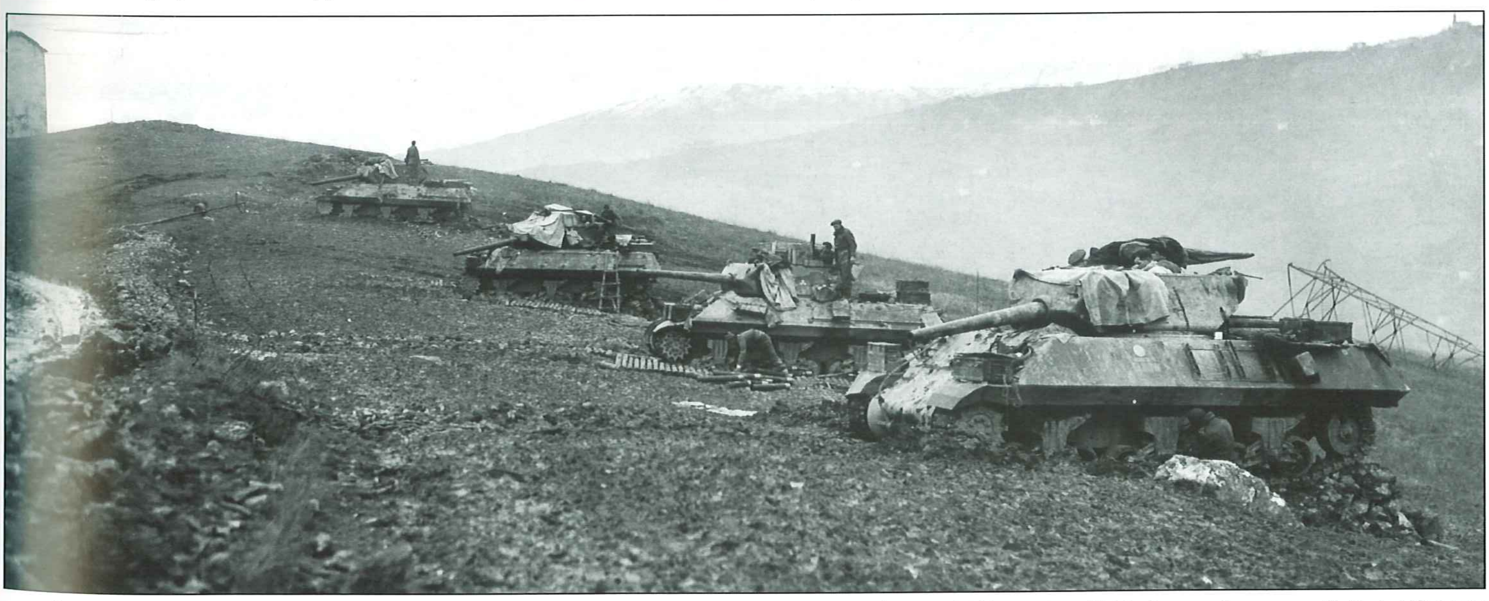
Italian families huddle near the base of a cliff near a M10 3in. GMC named "Hitler's Nightmare" during the fighting near Livergnano, Italy on 19 October 1944. This is an intermediate production type with the V-shaped turret counterweights.

British units also made use of the M10 during the Italian campaign. Here, a M10 of the 93 AT Regiment supporting infantry of the 5 Sherwood Foresters near Petriane during the advance on the Gothic Line on 28 August 1944.

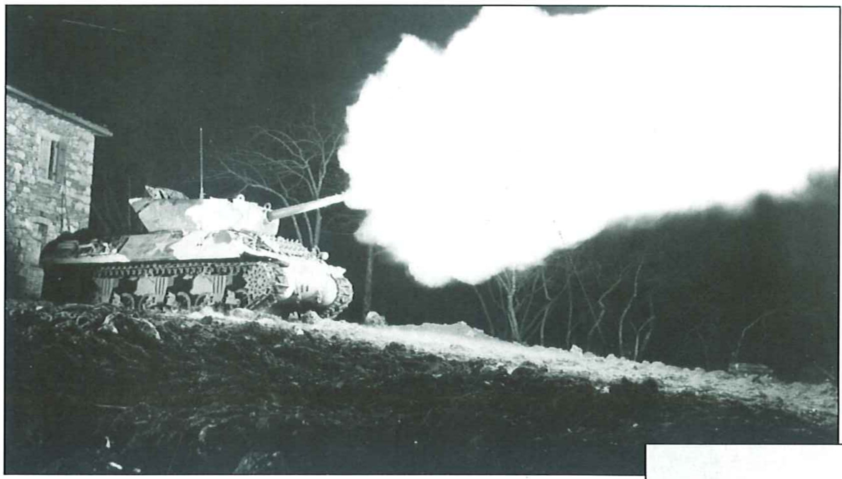




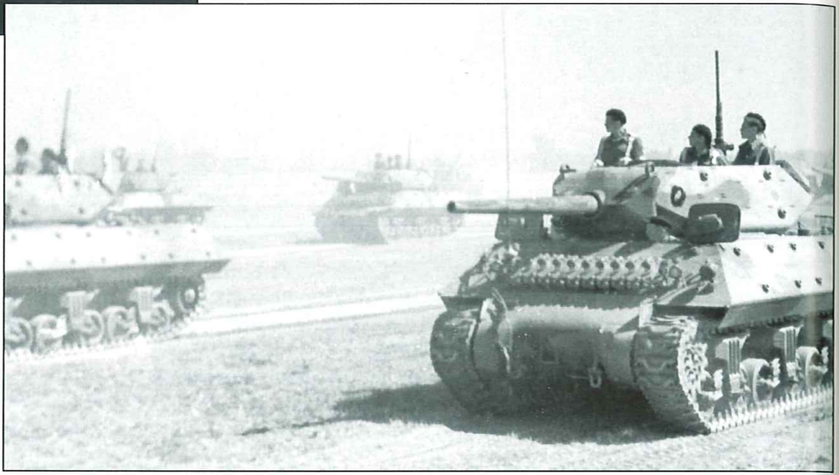
Another Commonwealth force using the M10 in Italy was the South African Army. Here, three vehicles named "Voodoo", "Venture" and "Vagabond" of the 1/11 AT Regt. provide fire support for the 6th South African Division near Poretta, Italy on 17 November 1944.



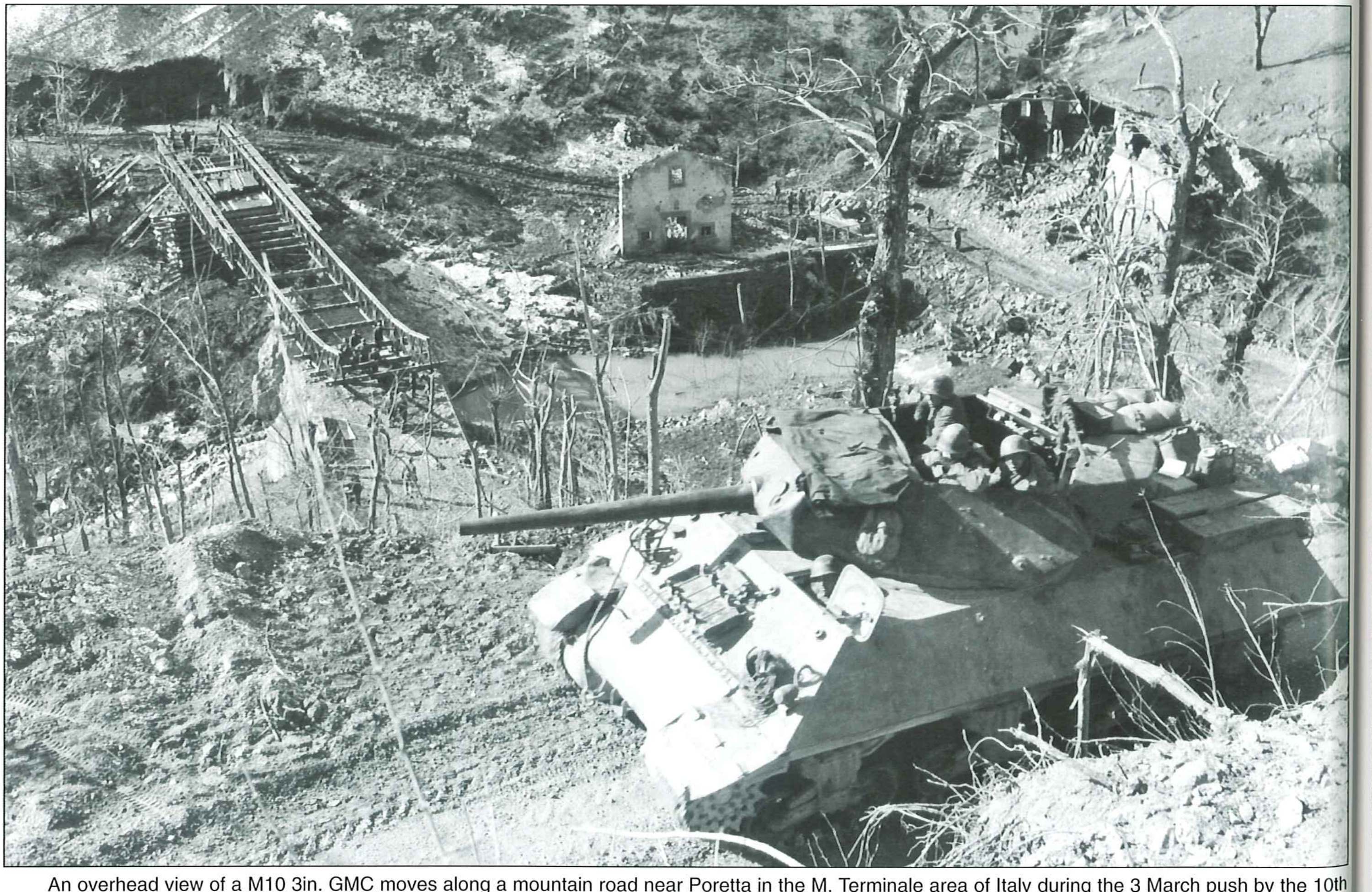
A view of the South African tank destroyer battery from the front during the Poretta fighting on 17 November 1944. As was the case with their US Army counterparts, the frequent lack of German tank opponents led to the use of tank destroyers in the improvised artillery role.



A dramatic view of a M10 3in. GMC firing at night in support of Fifth Army units in Italy on 20 February 1945. This vehicle has been given a coat of winter camouflage, with a rolling pattern of white over olive drab evident by close examination of the photo.

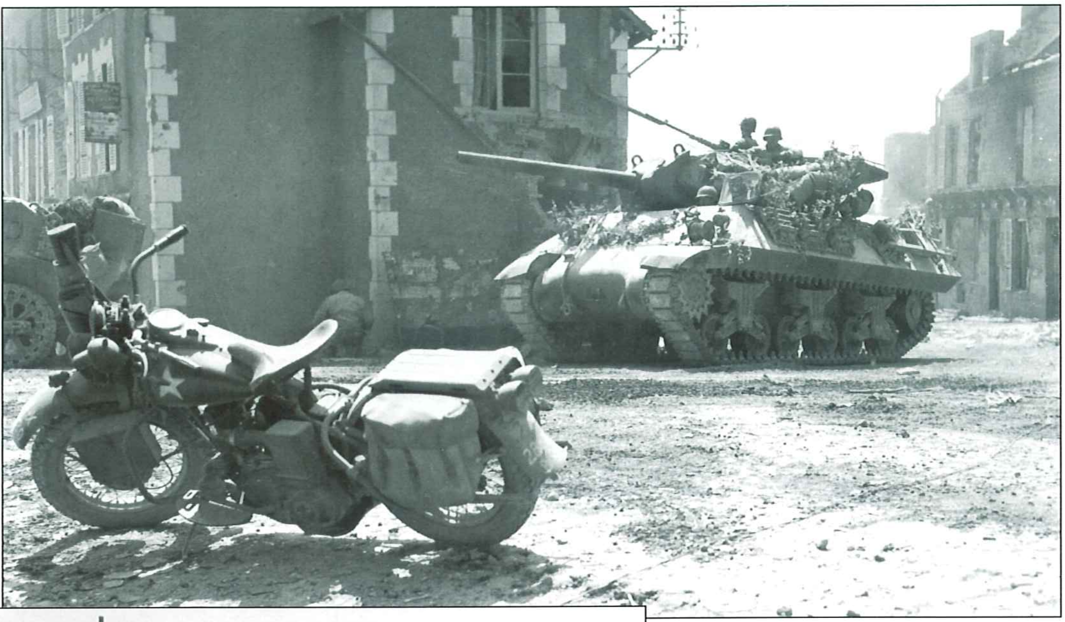


A participant in the Po river valley fighting was the Polish 2nd Armored Division, which had entered the campaign the following year in support of Polish troops who captured the Monte Cassino abbey. This division, equipped and organized by the British Army, had an attached M10 unit, the 2nd Anti-Tank Regiment, seen here on parade after the fighting ended. This vehicle's M10s were camouflage pattern-painted, probably in Shade No. 15 olive drab and black.

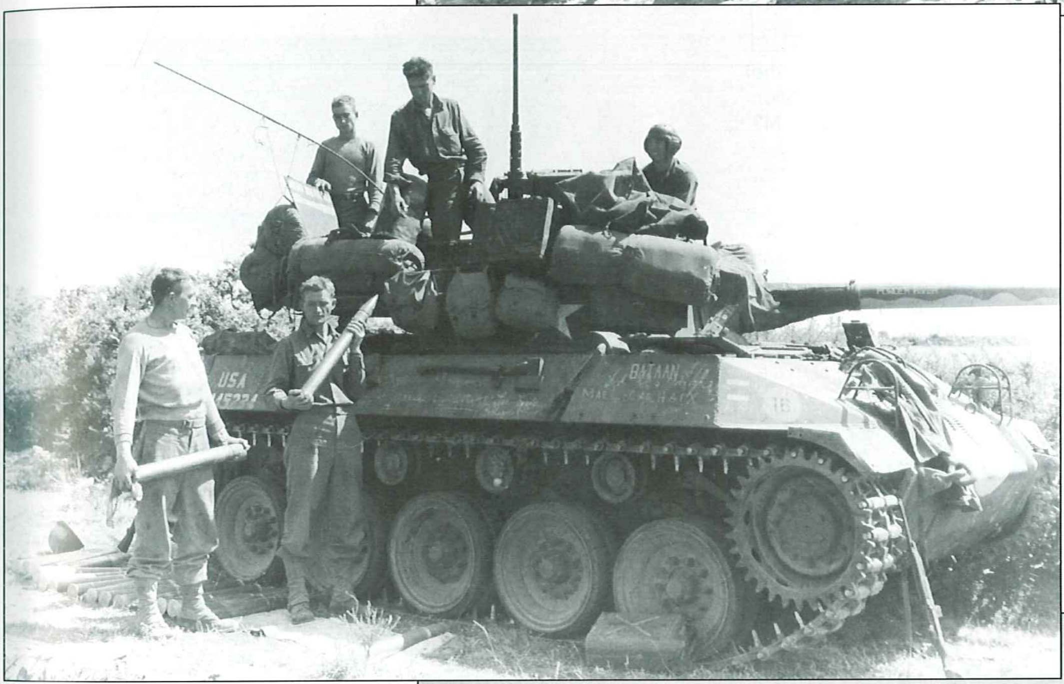


An overhead view of a M10 3in. GMC moves along a mountain road near Poretta in the M. Terminale area of Italy during the 3 March push by the 10th Mountain Division towards the Po river valley. In the valley below can be seen a partially completed Bailey bridge, and a disable M4 medium tank near the building in the center.

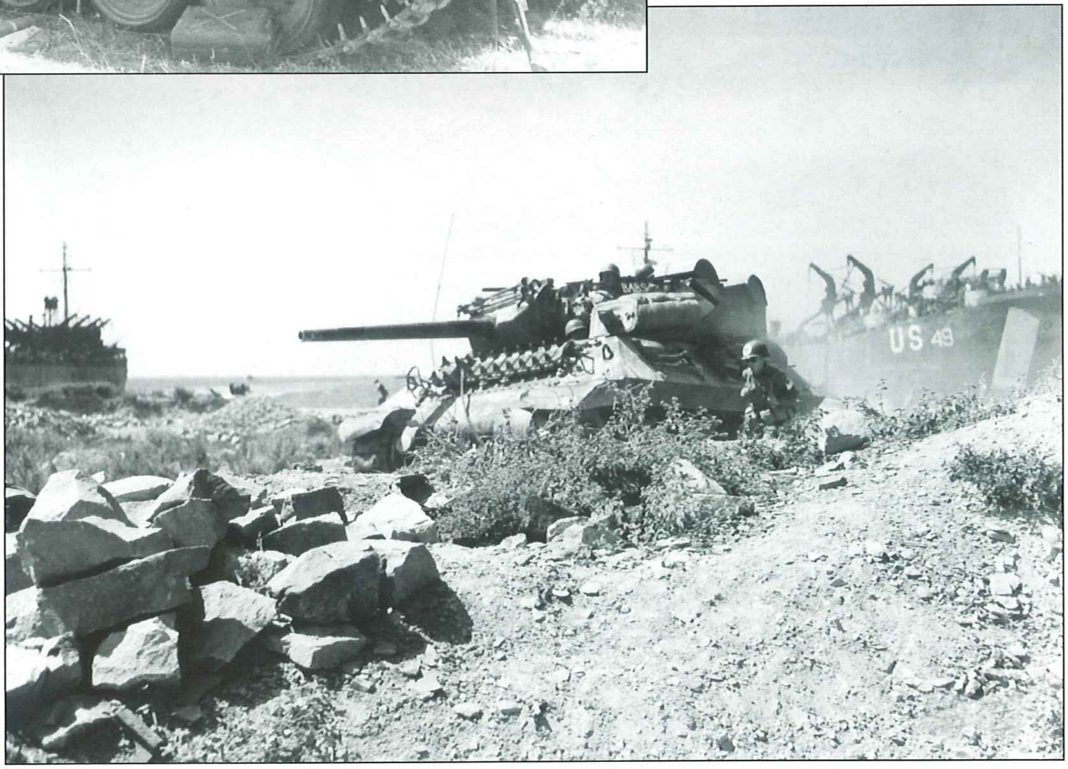
The Battle of France 1944



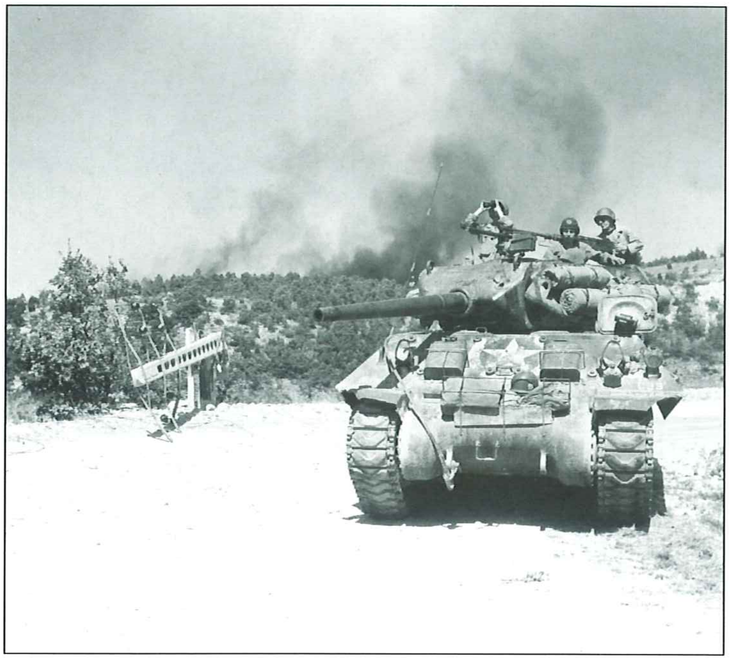
A M10 3in. GMC enters Percy during Operation Cobra in France on 1 August 1944. Cobra was the successful attempt to break out of the bocage country in Normandy. With German lines ruptured, the US Army began moving westward towards the key port of Brest and eastward towards Paris.



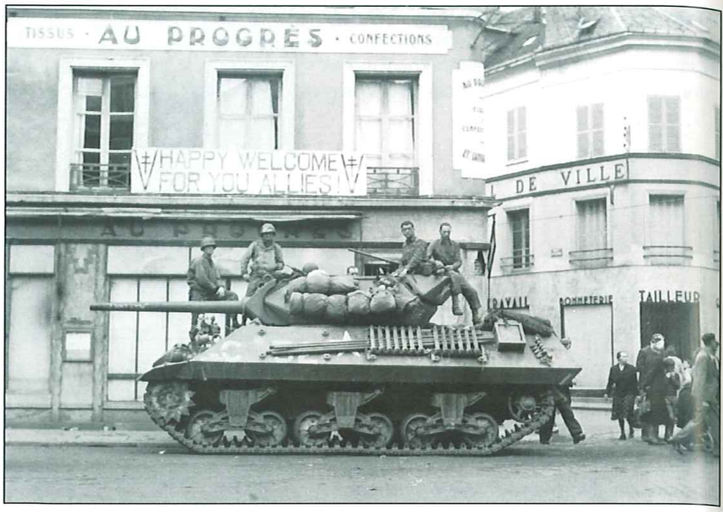
The crew of a M18 76mm GMC named "Bataan" load ammunition for a fire mission near Brest, France on 12 August 1944. The tactical markings on the hull side include a bridge weight marking (yellow circle with black 16), with an embarkation bar code behind it; the bar code includes the code 47997 with 47 indicating its divisional attachment and 997 being a secret unit code. The bar code is white/maroon/white dictated by the last tow digits of the code number; this system was introduced for D-Day as a substitute for the usual bumper codes. Another curious marking is the use of white counter-shading under the gun barrel; also notice a separate name "Powder River" on the gun tube. There is a large white circled star on the bow.



The Normandy invasion was soon accompanied by a second major landing in the Mediterranean in southern France on 15 August 1944. Here, a M10 3in. GMC named "Babs" with a full set of wading trunks moves out from the beach area on 15 August 1944. In the background are LSTs which probably brought the tank destroyer to the landing beaches.



A M10 3in. GMC of Co. C, 601st Tank Destroyer Battalion covers the beaches during the landings in France on 15 August 1944. This battalion had earlier fought in North Africa, Sicily, and Italy, first equipped with M3 75mm GMCs.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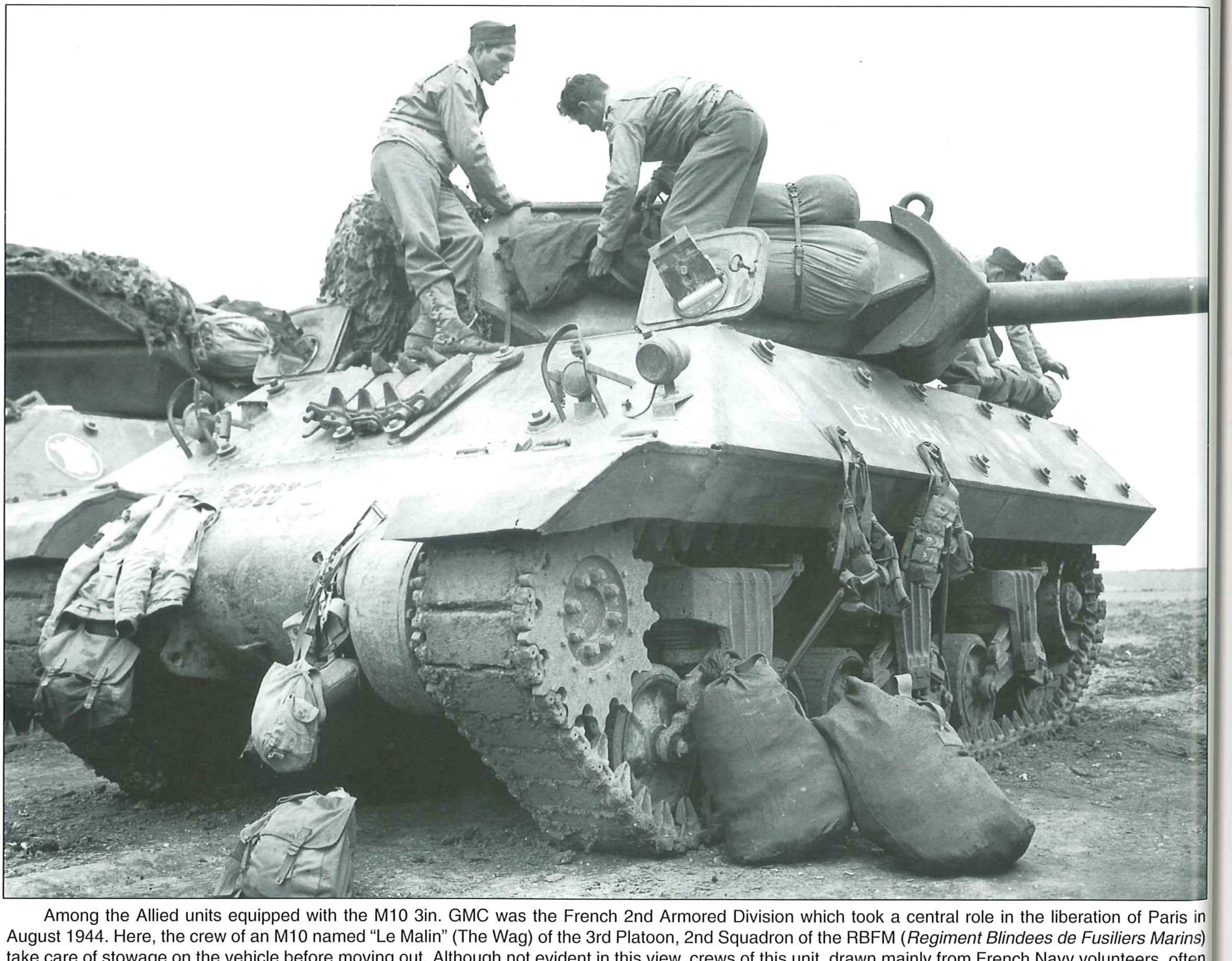
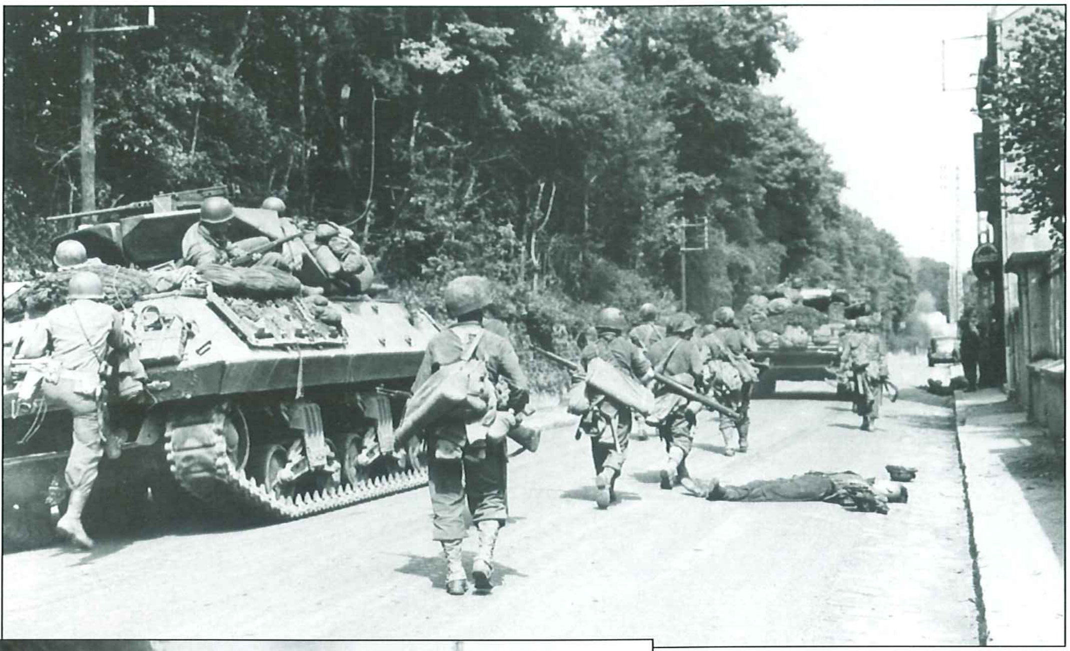
HAPPY WELCOME FOR YOU ALLIES!
DE VILLE
TAILLEUR

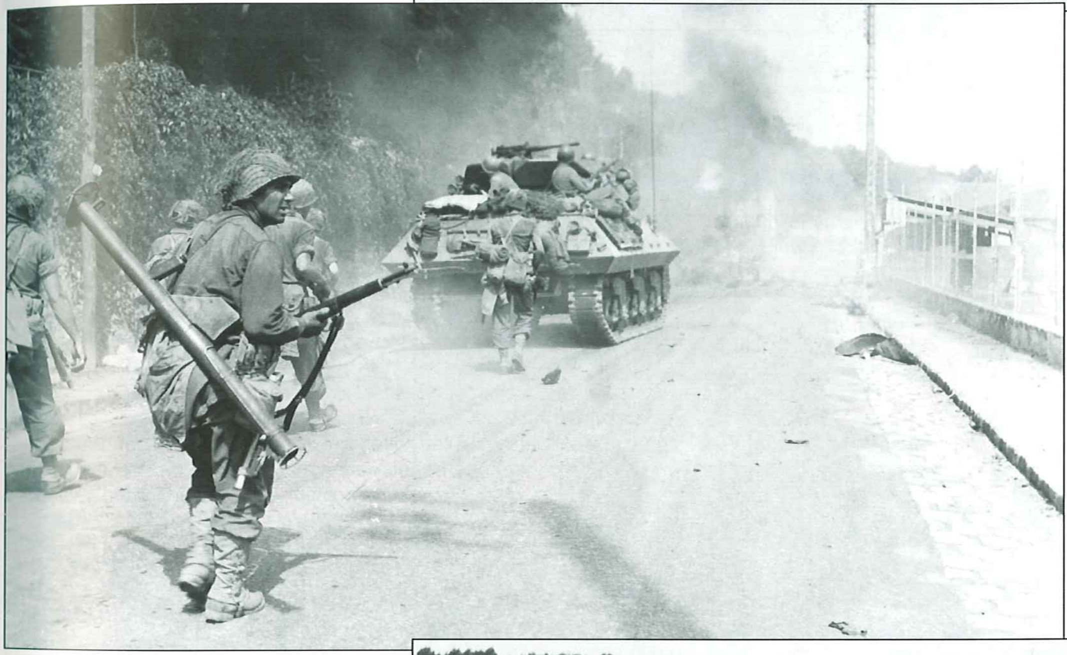
A M10 3in. GMC in Dreaux, France on 17 August 1944. This vehicle has its tactical numbers on the hull side consisting of the company letter "C" and the vehicle number "32".



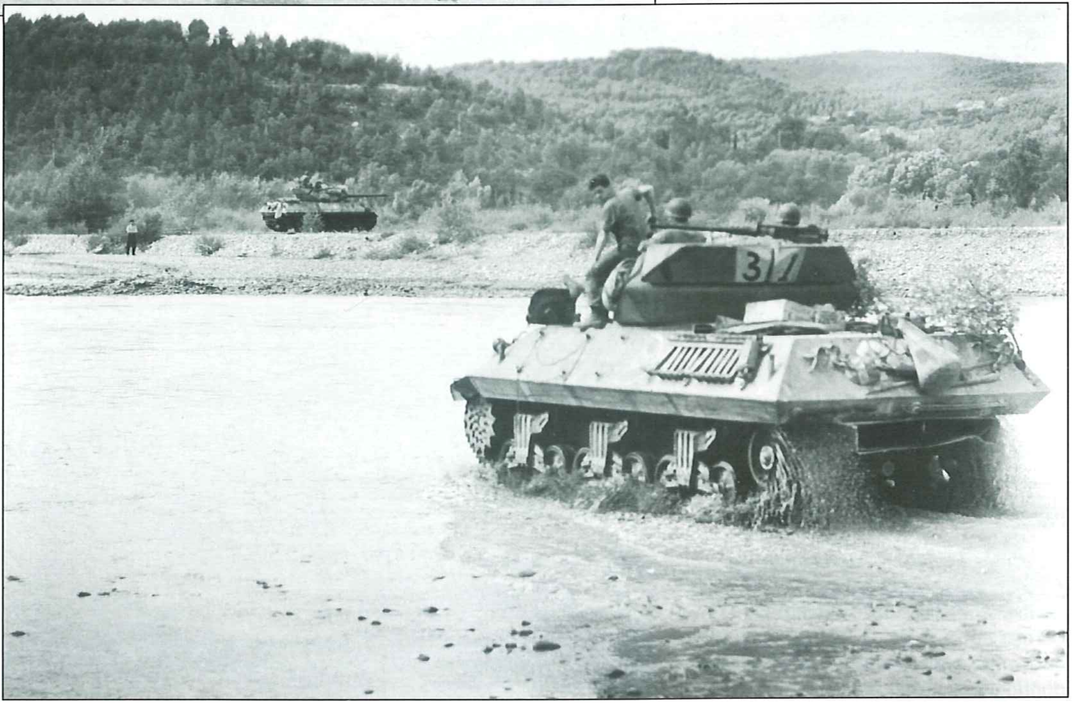
Among the Allied units equipped with the M10 3in. GMC was the French 2nd Armored Division which took a central role in the liberation of Paris in August 1944. Here, the crew of an M10 named "Le Malin" (The Wag) of the 3rd Platoon, 2nd Squadron of the RBFM (*Regiment Blindees de Fusiliers Marins*) take care of stowage on the vehicle before moving out. Although not evident in this view, crews of this unit, drawn mainly from French Navy volunteers, often wore the distinctive French naval cap rather than French Army attire.

A M10 3in. GMC company moves forward through Fountainebleu with infantry support in the outskirts of Paris on 23 August 1944. The infantry immediately in the center are from a bazooka team with two GIs carrying additional rockets in a special sling carrier.

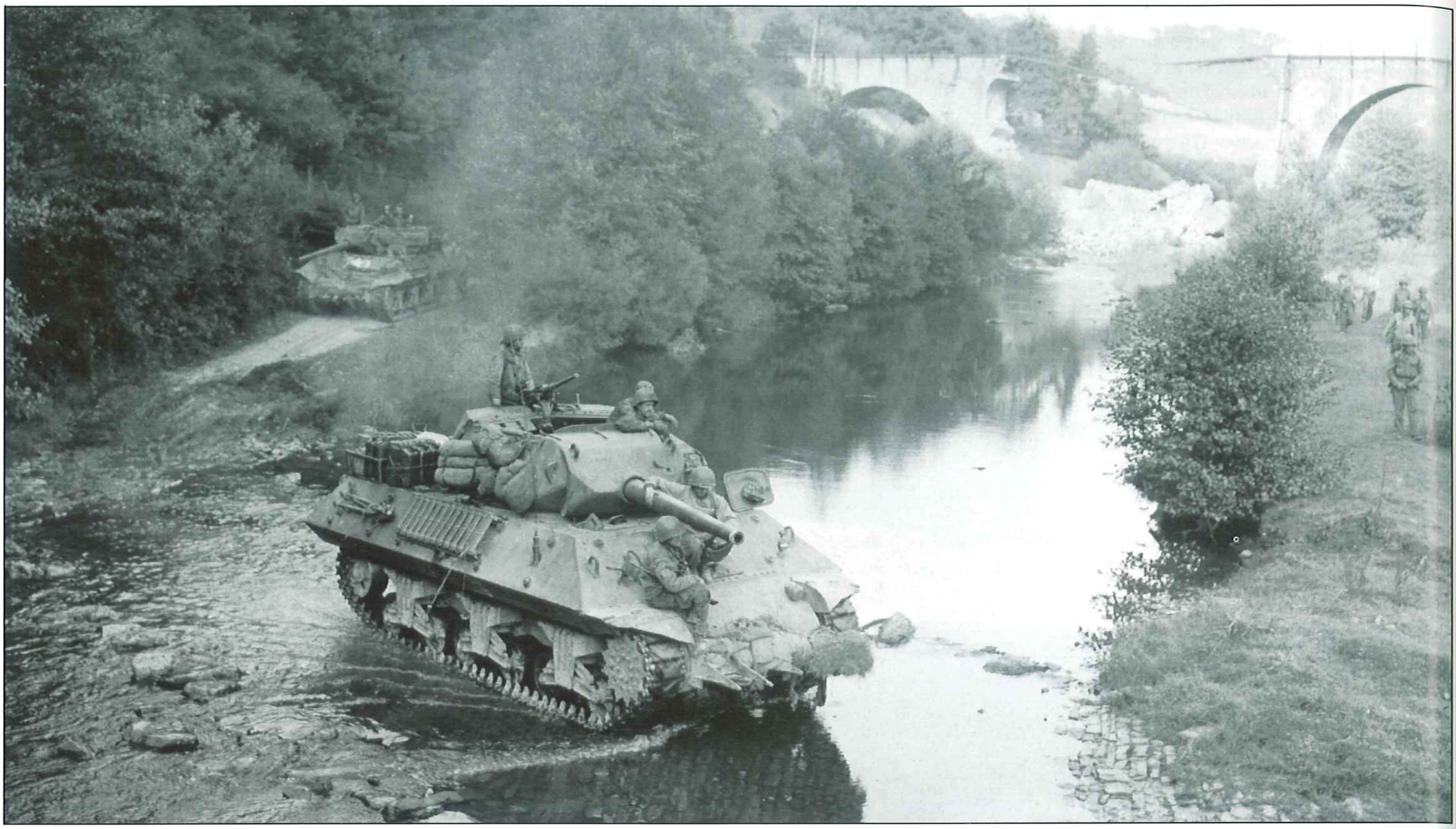




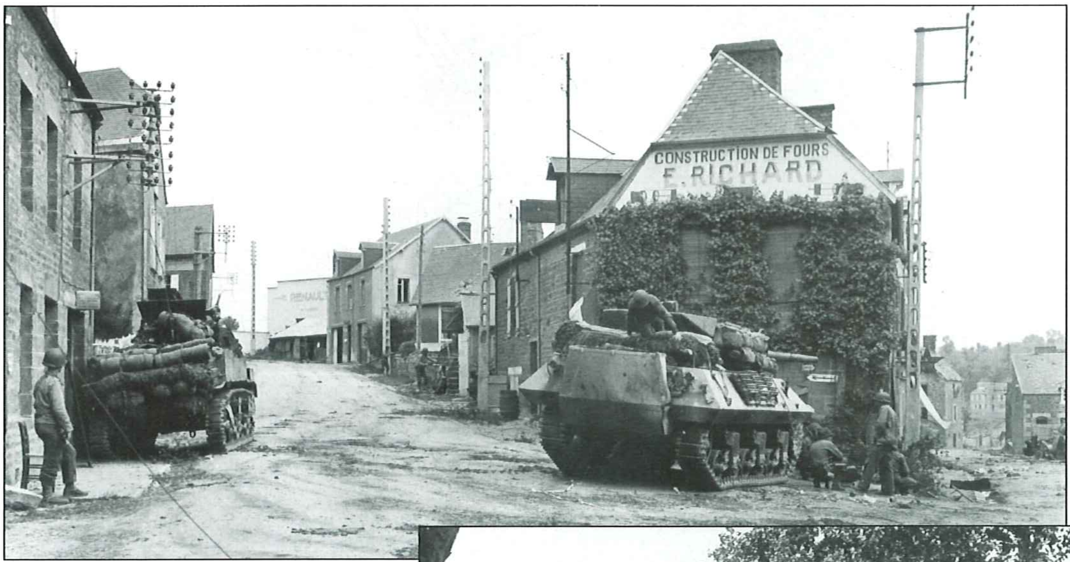
A wary group of infantry accompany M10 3in. GMCs during the advance through Fountainebleu on 23 August 1944. The bazooka man to the left is the same man seen in the earlier photo here of the same column.



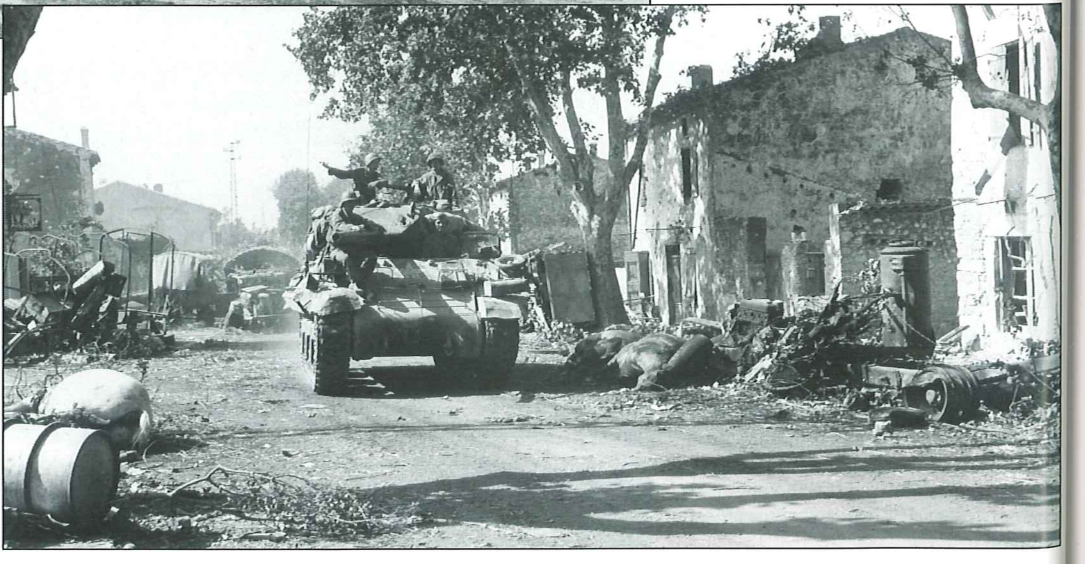
A pair of M10s of the 601st Tank Destroyer Battalion move forward over the Durance river in southern France on 20 August 1944. These vehicles retain the same insignia pattern as mentioned in the color plates with a white band at the undersides of the turret counterweight with the vehicle tactical number.



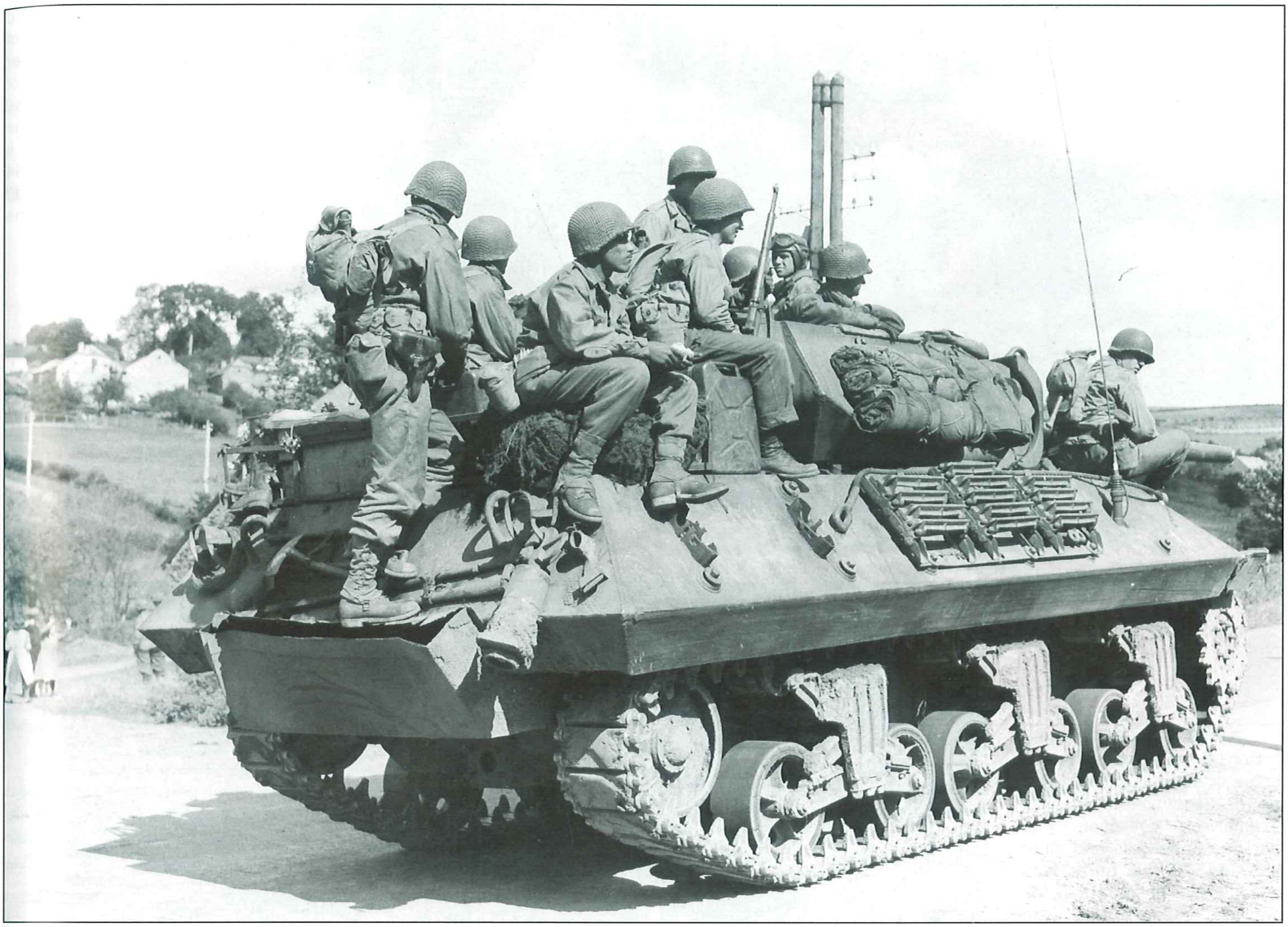
A pair of M10 3in. GMC move across a stream in central France in August 1944. Notice that the lead vehicle is still fitted with Culin hedgerow cutters on the transmission housing. These were simple lengths of angle iron welded to the bow to help cut through the thick coastal hedgerows in Normandy.



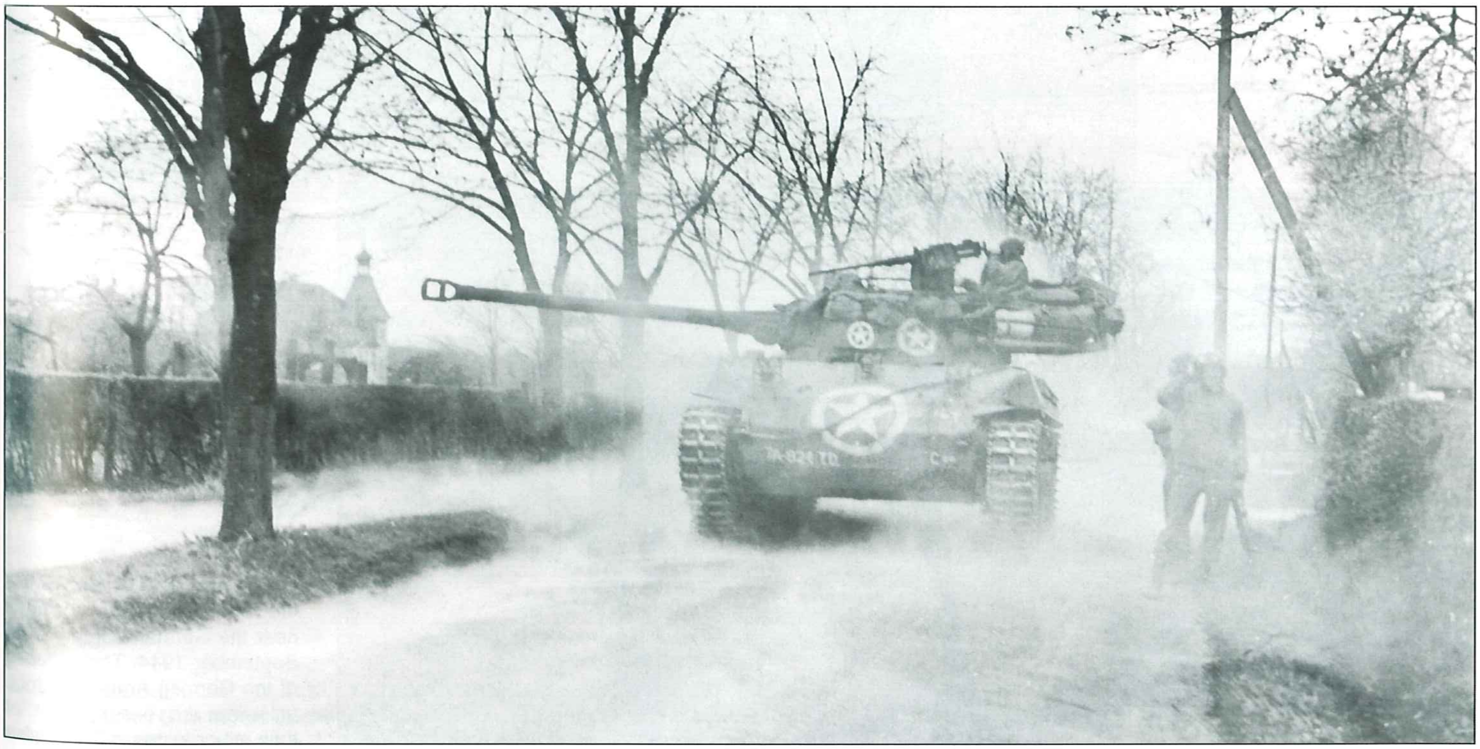
A M10 3in. GMC and M5A1 light tank sit at a crossroads in a French village during Operation Cobra. The M10 is still fitted with the wading trunk fitted to the vehicle to enable it to land from offshore weeks earlier.



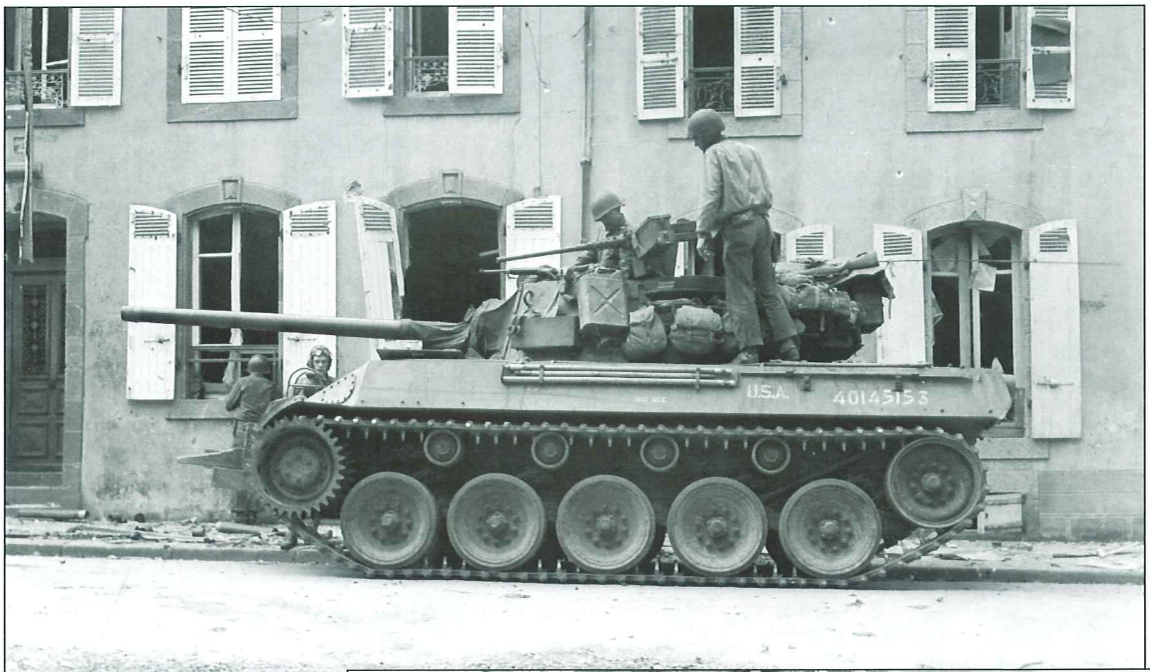
A M10 3in. GMC passes through the French town of Montelimar on 30 August 1944 while supporting the 3rd Division. The town is littered with burned out German trucks, dead horses and other war debris all too common during the summer fighting.



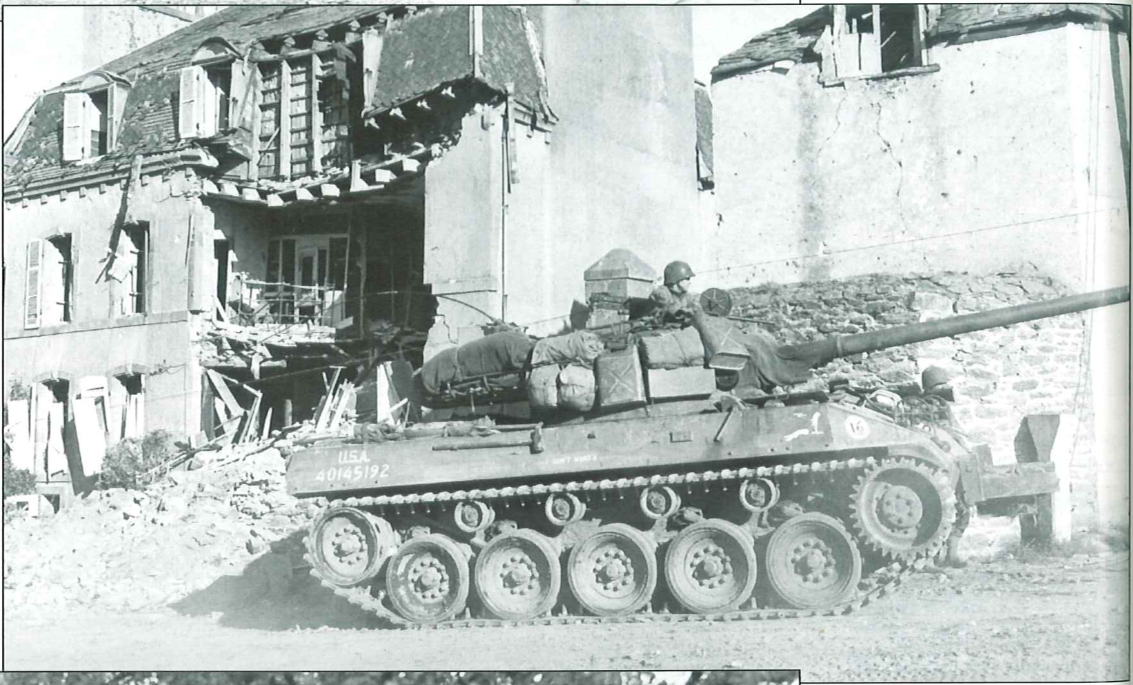
By the autumn of 1944, tank destroyer units were increasingly used to support infantry units. Here, infantry of the 3rd Battalion, 22nd Infantry hitch a ride on a M10 3in. GMC during operations near Mabompre, Belgium on 8 September 1944. This is a late production M10 with the duckbill turret counterweights. The stub of a wading trunk is still fitted at the vehicle rear.



A heavily marked M18 Hellcat of the 824th Tank Destroyer Battalion supporting 7th Army operations in southern France. The use of such large stars on the M18 was due to concern that the M18, with its torsion bar suspension, would be misidentified as a German armored vehicle. This vehicle's 76mm gun is fitted with a muzzle brake, a characteristic of later M18s.

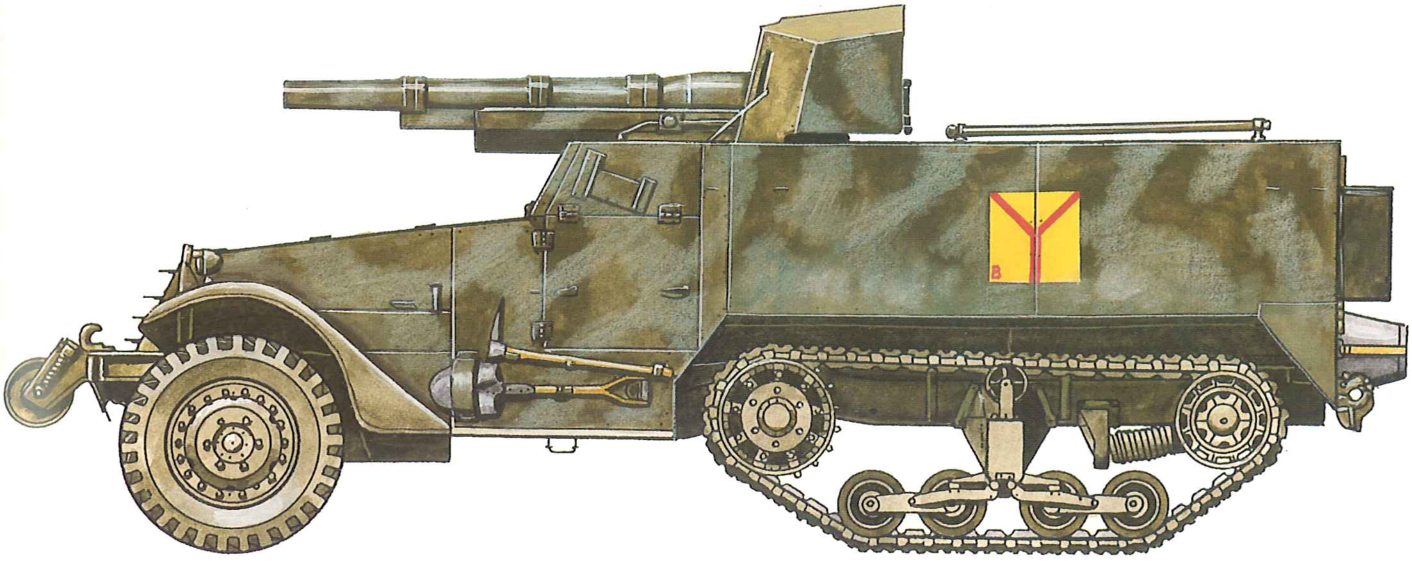


A M18 76mm GMC named "Big Gee" on the streets of Brest, France on 12 September 1944 during the final stages of the siege. Brest was a critical seaport in Brittany which the Allies hoped to capture, but it fell only on 19 September 1944 after the Germans had thoroughly demolished the harbor facilities.

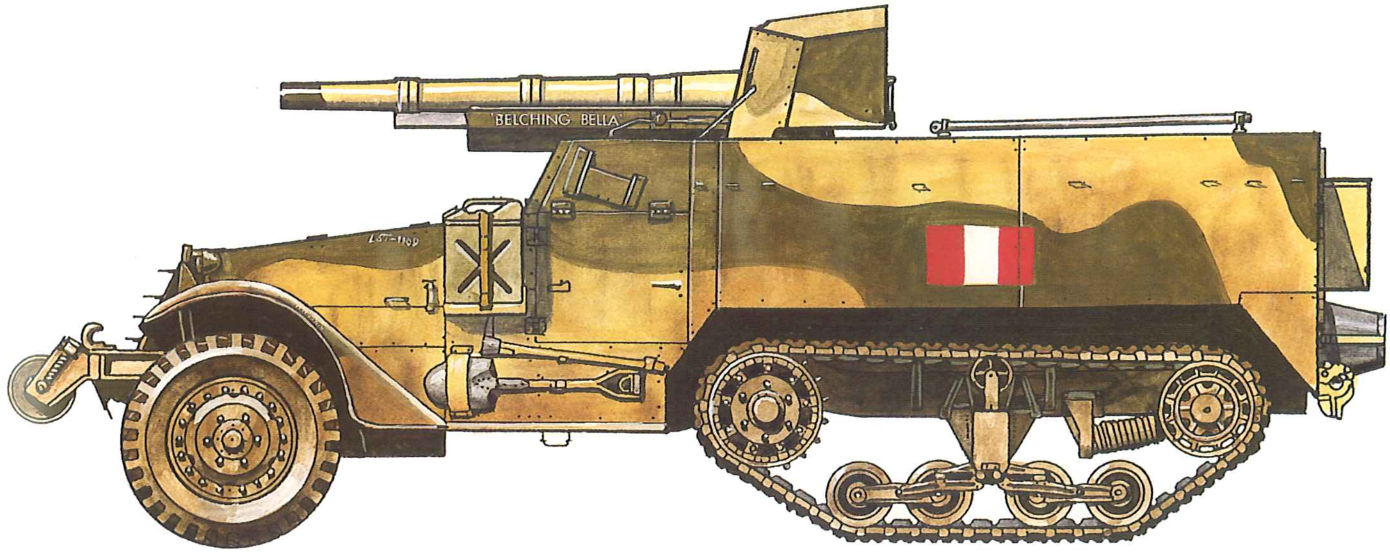


A M18 76mm GMC named "I Don't Want A'" near a ruined home in the outskirts of Brest on 12 September 1944. The extensive collection of backpacks, bedrolls and other stowage on the turret was characteristic of the M18 as the vehicle interior was too cramped to permit much stowage of the crew's equipment. This vehicle is fitted with a Culin hedgerow cutter as well.

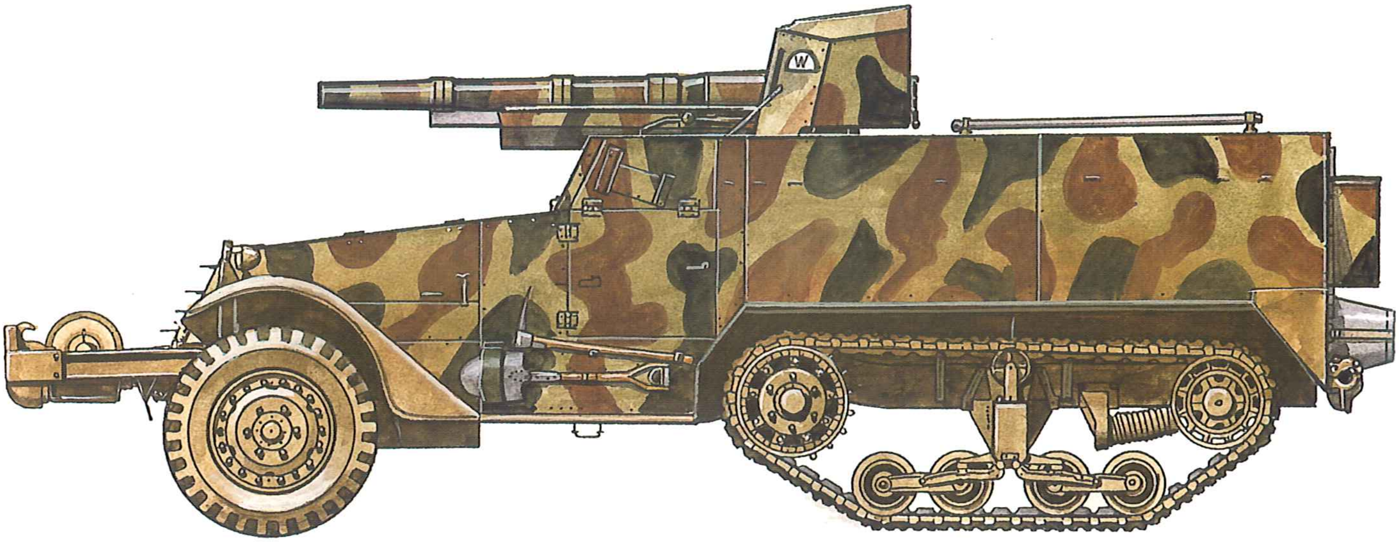
A pair of M10 3in. GMCs fire on Wehrmacht positions near the German border on 14 September 1944. The collapse of the German Army in France following the encirclement of their major forces in the Falaise pocket in August put US Army forces on the German frontier a month later.



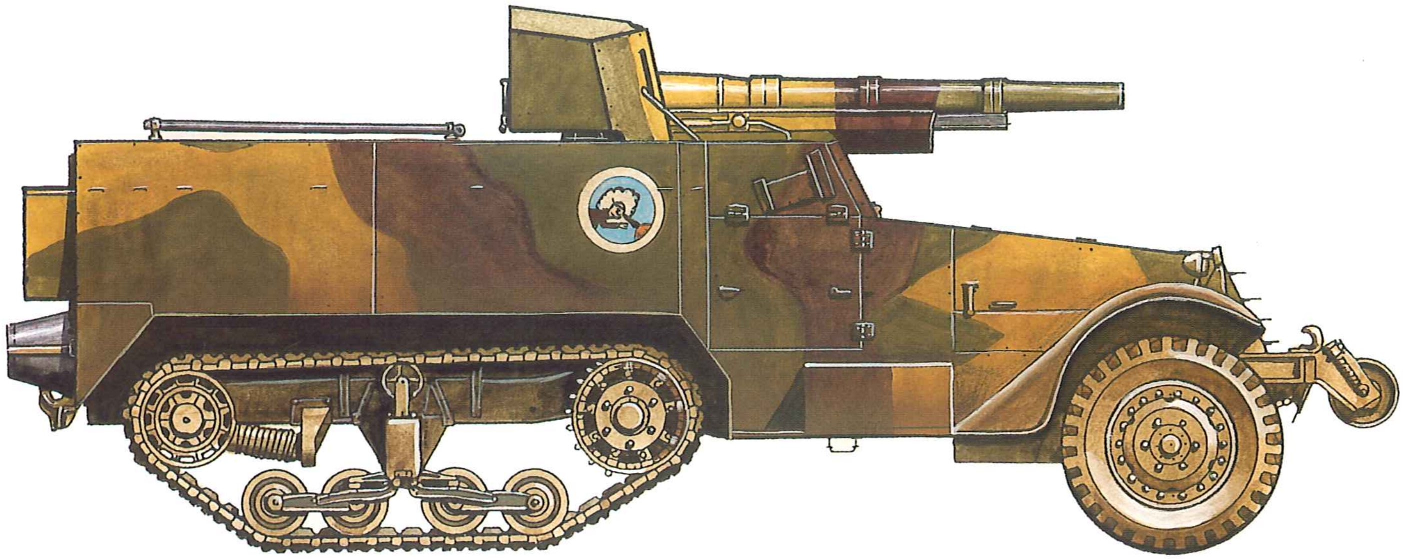
M3 75mm Gun Motor Carriage, 601st Tank Destroyer Battalion, El Guettar, Tunisia, March 1943.
The 601st Tank Destroyer distinguished itself during fighting against German armor at El Guettar while in support of the 1st "Big Red One" Division in 1943. The unit marking consisted of a yellow or white square with the a red Y superimposed on it, with the company letter painted in the lower left corner. As was common in the Tunisia campaign, the crew mopped mud over the base color of No. 9 olive drab to provide a modest amount of camouflage. When dried, this mud left a pale sand gray pattern over the vehicle.



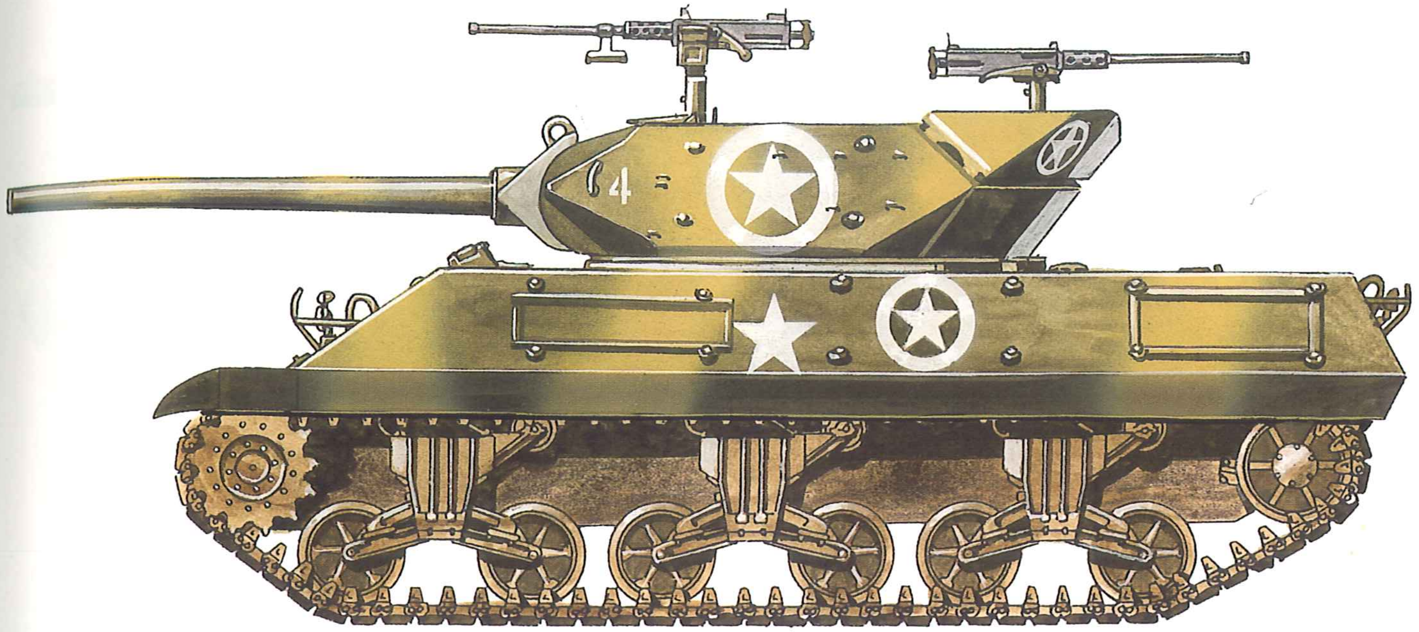
M3 75mm Gun Motor Carriage, Heavy Troop, B Squadron, The King's Dragoon Guards, Cassino area, Italy, 20 February 1944.
The British Army used the M3 75mm GMCs to provide fire support in armored car cavalry units. This vehicle is finished in an overall pattern of light mud over the olive drab base color. The red/white/red AFV recognition sign common on British vehicles in the Mediterranean theater at this time is evident on the hull side. The vehicle name "Belching Bella" is painted in white on the gun side, and a transit marking for LST-1109 can be seen chalked on the side of the armored engine cover.



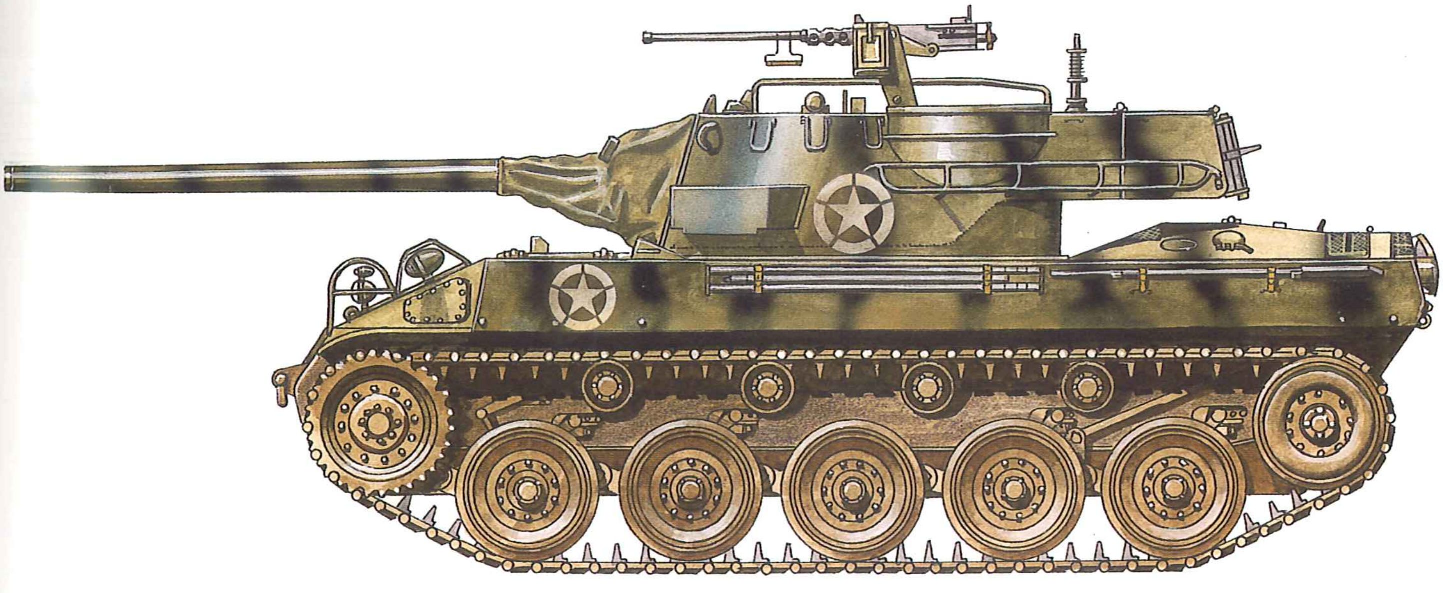
M3 75mm Gun Motor Carriage, Special Weapons Company, 1st Marine Division, Cape Gloucester, December 1943.
The Special Weapons Company of the 1st Marine Division painted their SPMs in a colorful pattern intended to provide camouflage in the jungle. The precise colors used have not been recorded, but are believed to have been a pattern of No. 8 earth red and black over faded olive drab. The vehicle tactical insignia is the division's usual half-circle in white, with the letter W (for Special Weapons Company) in black, with the entire insignia trimmed in black for better contrast.



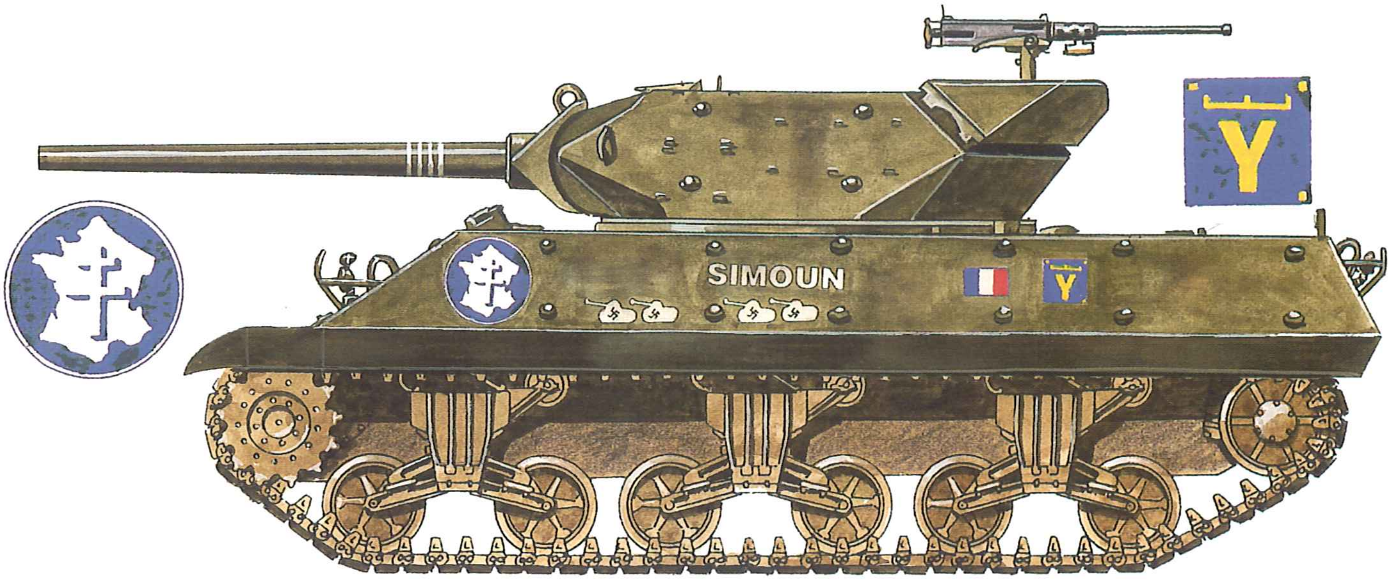
M3 75mm Gun Motor Carriage, Special Weapons Company, 1st Marine Division, Cape Gloucester, December 1943.
Another SPM from the same unit shows the variety (and lack of standardization) of camouflage schemes on Marine armor during the Pacific War. This vehicle is pattern painted in No. 8 earth red and No. 6 earth yellow over the usual olive drab. A cartoon insignia is painted on the hull side, which appears to be of a boy firing a musket.



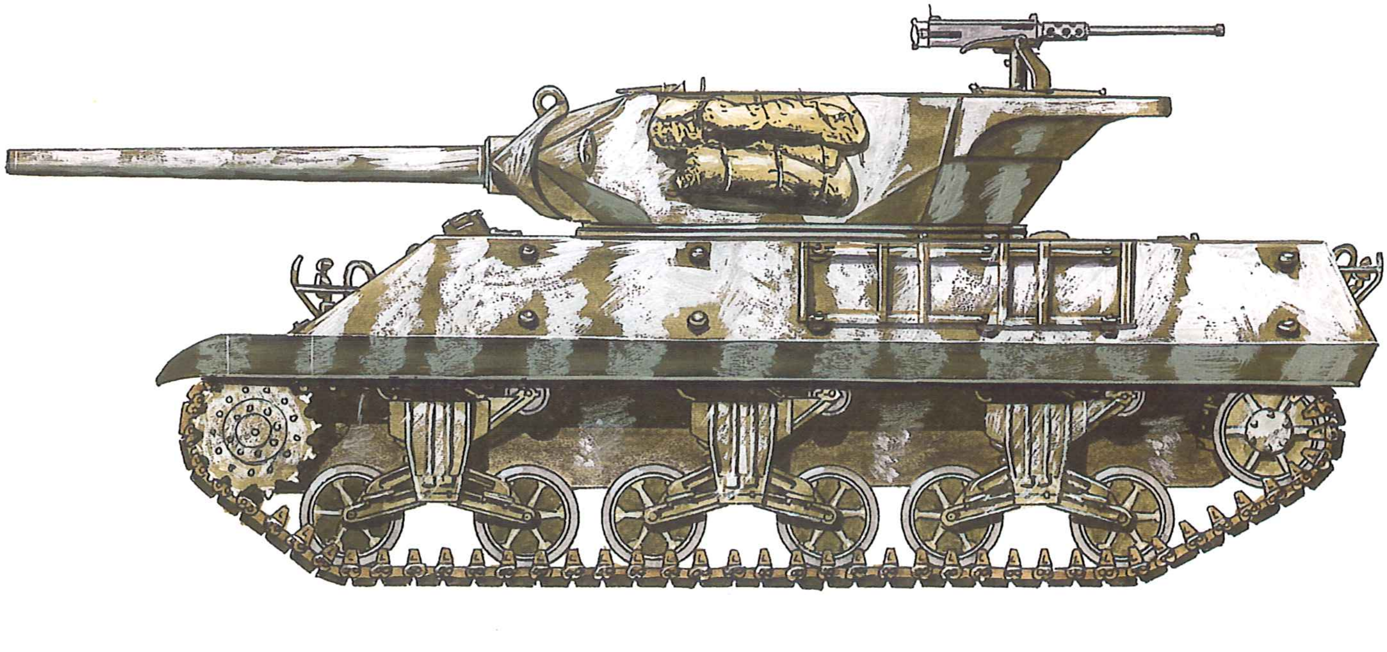
M10 3in. Gun Motor Carriage, 601st Tank Destroyer Battalion, Anzio beachhead, May 1944.
Besides the tank destroyer battalion of the 1st Armored Division (701st TD), there were two independent battalions committed to Anzio, the 601st Tank Destroyer Battalion serving with the 3rd Division and the 645th Tank Destroyer Battalion serving with the 45th Division. Shortly before the Sicily invasion in 1943, US armor units in the Mediterranean were ordered to paint large white stars with thick white circles around them for identification after it was found that the white star alone could be mistaken for a cross at long ranges. This unit has gone a bit extreme in carrying out this order, retaining the original stars and adding more for good measure. This vehicle also carries a vehicle tactical number "4" on the turret side. The vehicle tactical number was also repeated on the center of the turret rear. Either side of the turret rear counterweights had a 1 foot wide swath painted white, with the tactical number painted in black in 18 inch high numbers. In this case, the white band is evident, but the number is hidden since it was painted on the right side counterweight. The finish is typical of the early Mediterranean campaign with a pattern of No. 6 earth yellow (FS 30257) over the usual No. 9 olive drab.



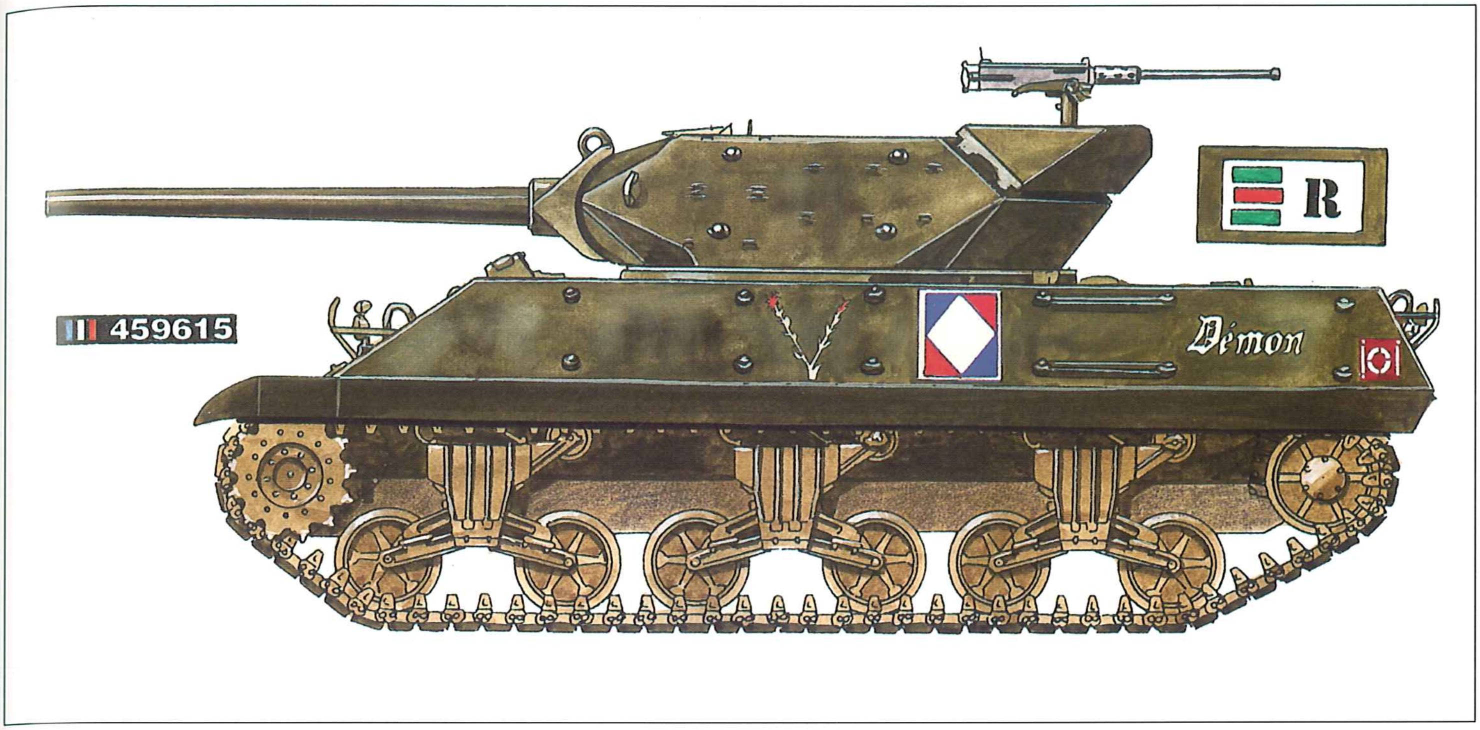
T70 76mm Gun Motor Carriage, 601st Tank Destroyer Battalion, Anzio beachhead, May 1944.
At least two prototype T70 (later M18) tank destroyers were sent to Anzio for combat trials. They were painted with the large Allied stars with the surround common since the 1943 Sicily campaign. In addition, they were given a hasty camouflage scheme consisting of bands of black painted over the usual olive drab finish.



M10 3in. Gun Motor Carriage, *Regiment Blindees de Fusiliers Marins*, French 2nd Armored Division, France, September 1944.
The RBFM was one of the most famous armored units in the Free French Army as its troops were all volunteers from the French Navy's marine rifle troops, who still wore their sailors caps even aboard their tank destroyers. The Cross of Lorraine was the divisional insignia while the regiment used the letter Y on a blue square to distinguish sub-units, a horizontal bar over the Y indicating the 1st Battalion, and the dots indicating 3rd Platoon of the 4th Squadron. This unit painted small silhouettes for every German tank claimed, as well as white barrel bands. The vehicle names were taken from pre-war French destroyers.

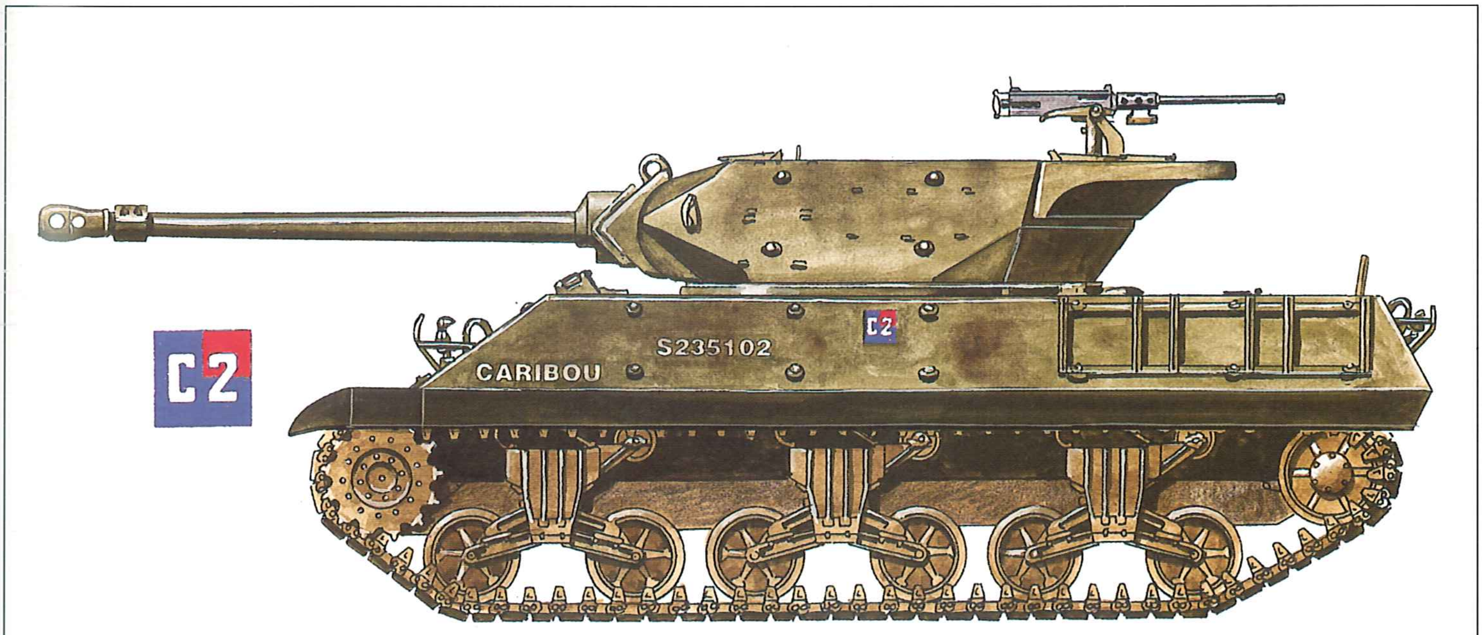


M10 3in. Gun Motor Carriage, 773th Tank Battalion, Belgium, December 1944.
This is a fairly typical example of the style of markings applied in late December during the Battle of the Bulge. An irregular pattern of whitewash has been mopped over this M10 to break up its silhouette. Since the vehicles were often deployed along the edge of tree-lines, some olive drab is left on to better blend into wooded terrain. This was one of the highest scoring US Army tank destroyer battalions of the war, claiming 103 German tanks destroyed through the end of January 1945.



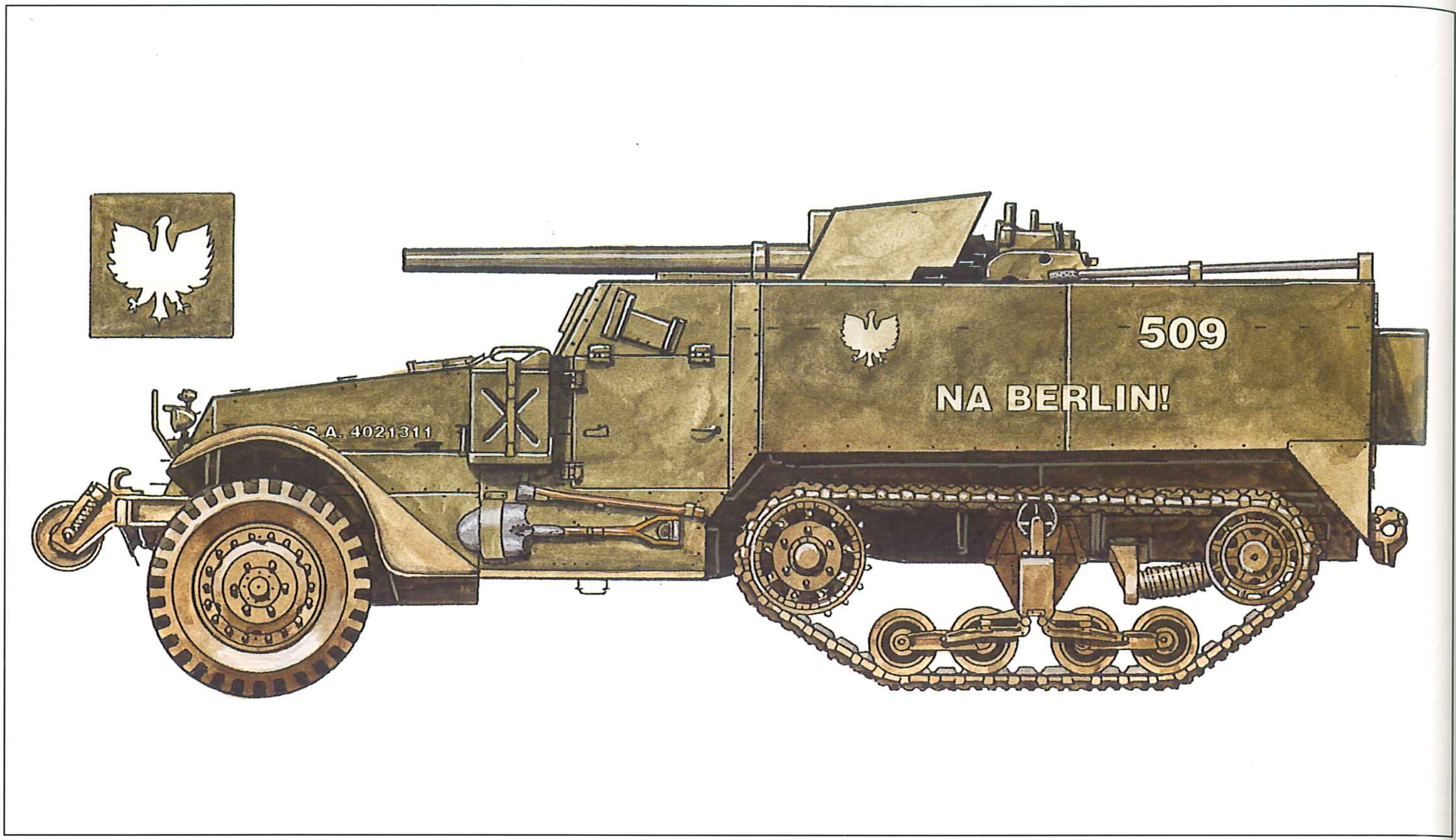
M10 3in. Gun Motor Carriage, *11e Regiment de Chasseurs d'Afrique*, French 5th Armored Division, Germany, January 1945.

The 11e RCA was not an organic part of the 5th Armored Division, but fought with it throughout the war. As a result, it followed the markings pattern of the division with their distinctive rectangle and diamond insignia in the French national colors. The 11e RCA had three battalions, with one battalion going to each of the three combat commands within the division. The divisional insignia was carried on either side of the hull as seen here, and usually on the rear as well (to the right of center). The 5th Armored Division followed the usual French markings practice, placing the small-unit information on a small colored square, red for 5th Armored Division. The center letter "O" with two vertical bars indicates the 2nd Battalion while the dots indicate the 2nd Squadron. The 11e RCA tended to mark their vehicles with the Gothic-style script seen here. Generally the name was repeated on the center of the transmission housing, immediately below the vehicle serial number. The vehicle serial number was usually painted in white on a black background, about 2.5 inches high. It was carried in the center of the transmission housing on the front of the tank immediately below the row of bolts, and on the left bottom corner of the hull rear plate. Many of the vehicles in this regiment retained their US-style embarkation marking, a black "R" on a white rectangle with three colored bars. The color of the bars was based on a transit code given to each unit; the exact colors for this regiment are not certain, but the top and bottom bar colors were usually the same. One of the battalions of this unit had a simplified flower painted on the sides of its vehicles; details of its significance are lacking.



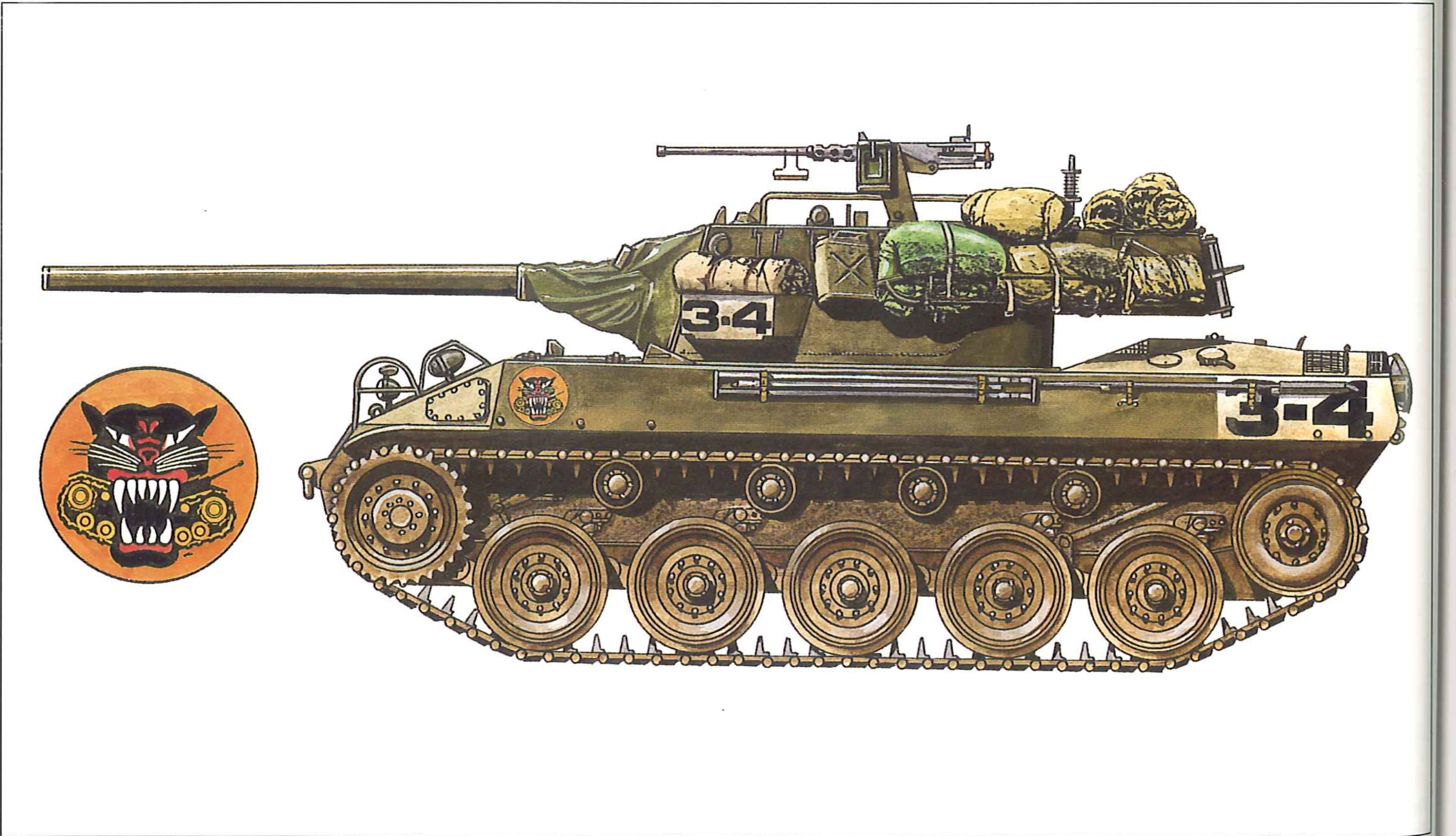
SP, 17 pdr., M10 Mk. II Achilles IIC, 4th Anti-Tank Regiment, Royal Canadian Artillery, Netherlands, May 1945.

The Canadian Army, like most Commonwealth forces, followed British markings practices. In the case of Lend-Lease tank destroyers, these followed Royal Artillery practices. The tactical markings consisted of the usual blue and red artillery square with the red square in the upper right corner indicating 1st Battery, in the lower right indicating 2nd Battery, and in the lower left corner, indicating 3rd Battery. The troop commander's used a two letter code beginning with R and followed by the Troop letter; gun position officers used a code beginning in G, followed by the Troop letter, the remaining vehicles were marked by the Troop letter followed by the vehicle number. This is the second vehicle of C Troop, hence the C2 in white on the battery box. The serial number is not certain. This M10 was finished in British Shade No. 15 olive drab, which replaced Standard Camouflage Colour No. 2 khaki brown in 1944. This color was very similar to US olive drab, and was adopted in part to avoid the need to repaint US Lend-Lease vehicles.



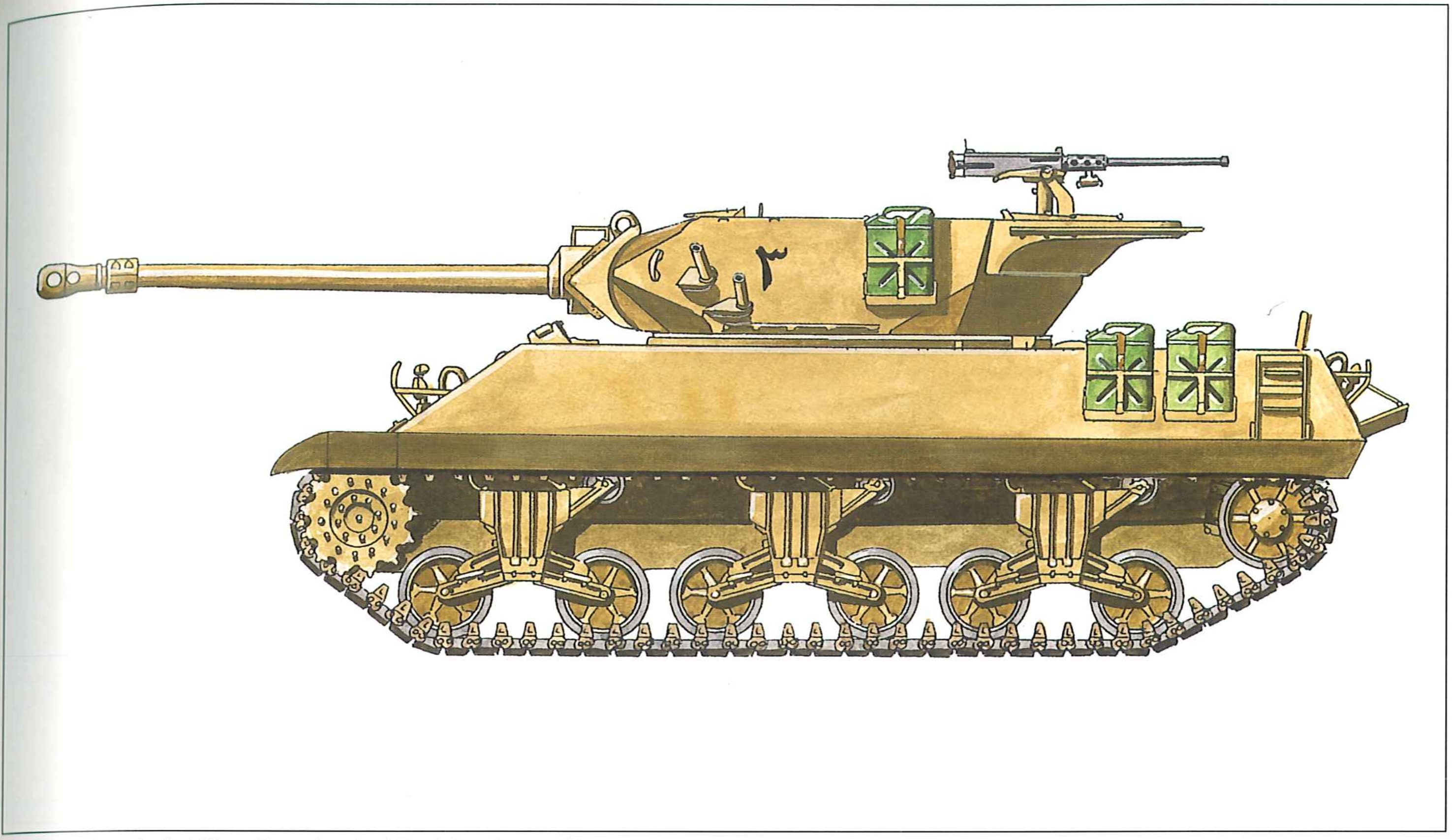
SU-57 (T48) 57mm Gun Motor Carriage, 7 *dywizjon artylerii samobieznej*, 1st Polish Army, Germany, 1945.

A small number of T48s was used by this Polish tank destroyer unit on the Eastern Front in 1944-45. Like most Lend-Lease equipment provided to the Soviet Union, it remained in its delivery scheme of olive drab, with the US Army serial still visible on the engine cover side panel. The national insignia of the Polish People's Army was the uncrowned Piast eagle in white as shown in detail in the inset drawing. The vehicle tactical number is 509 and a slogan has been painted on the hull side meaning "On to Berlin!"

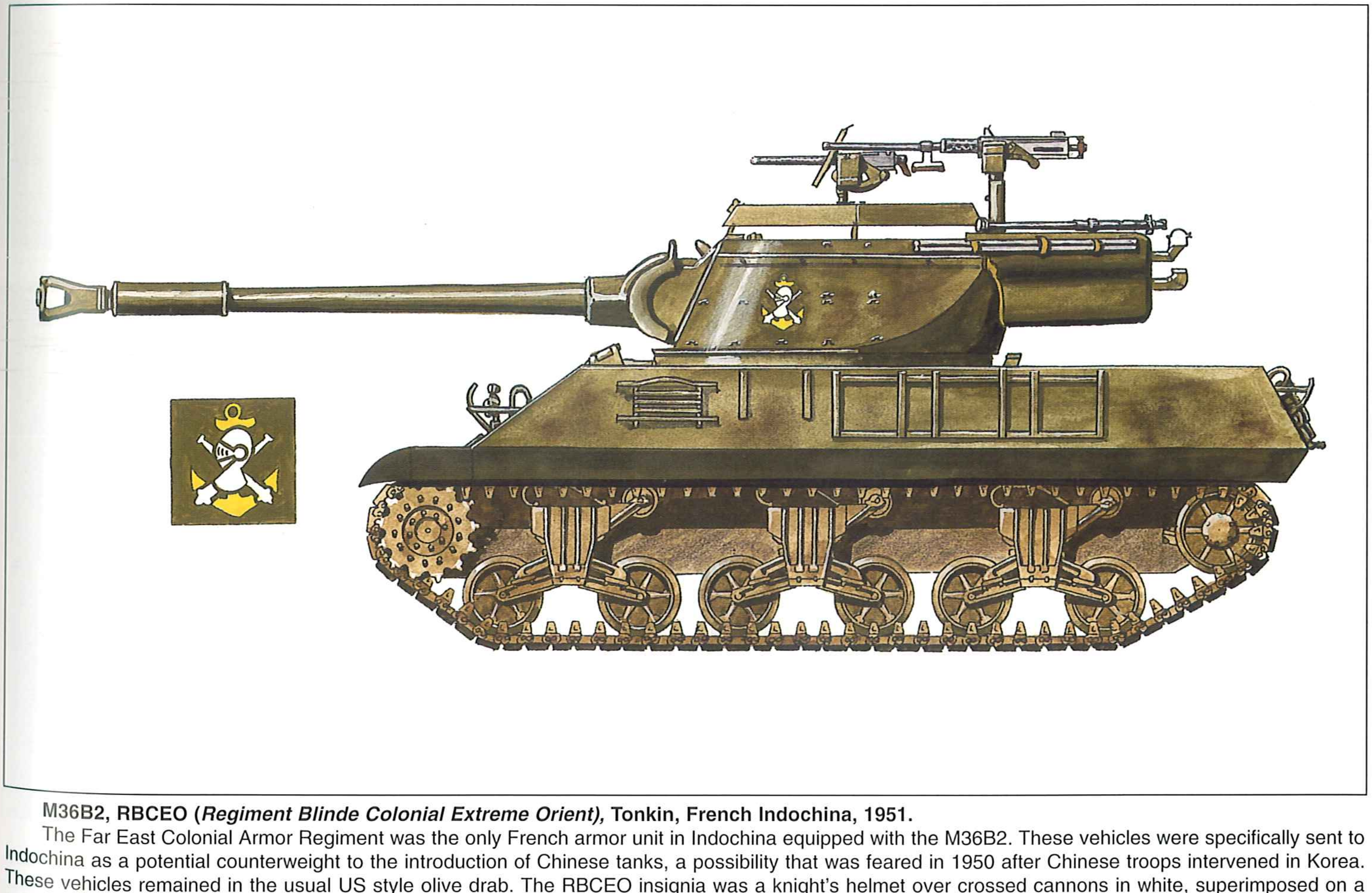


M18 76mm Gun Motor Carriage, 701st Tank Destroyer Battalion, Po river valley, April 1945.

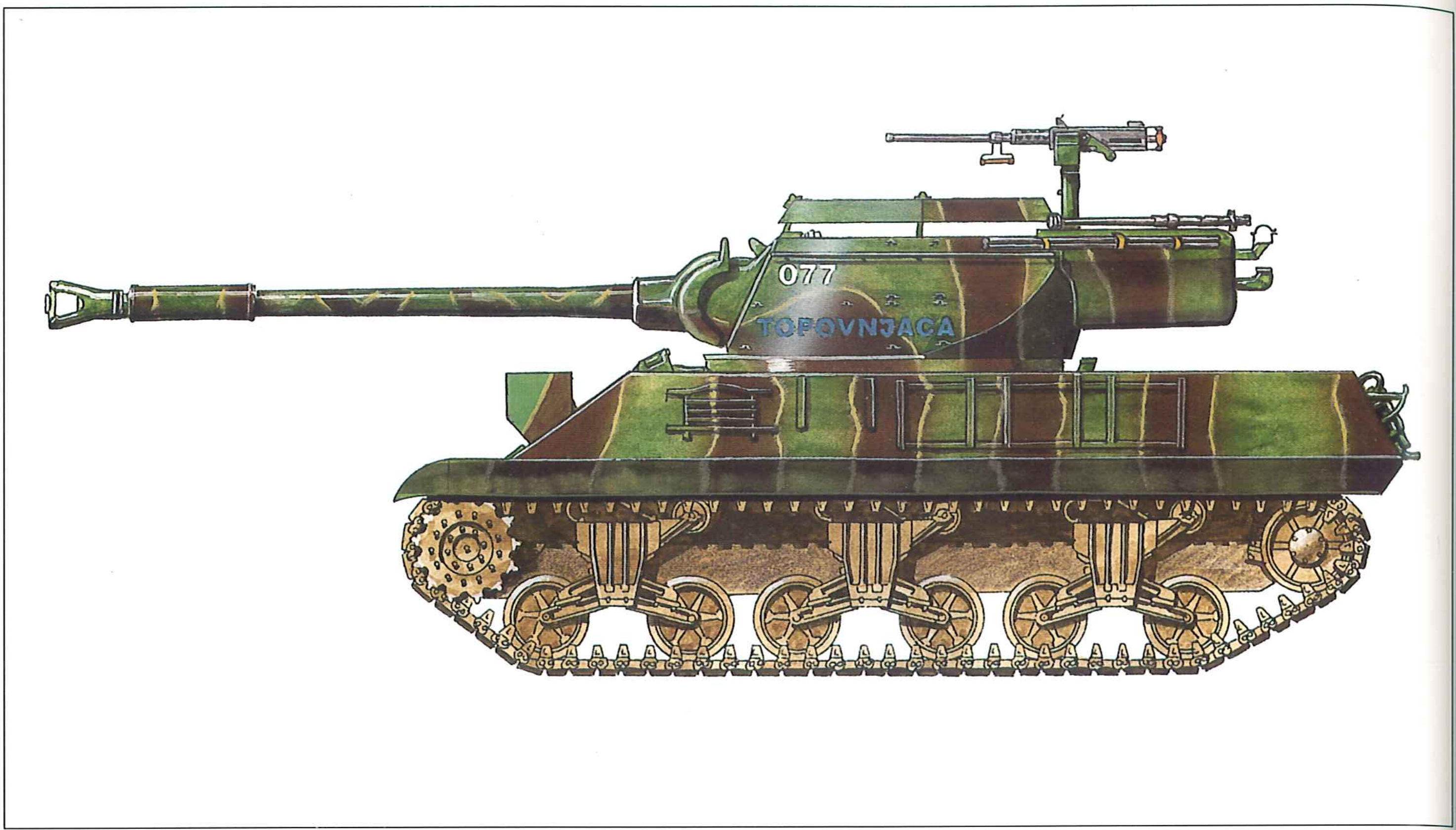
This battalion marked its vehicles very clearly with the tactical numbers being painted in black over a white rectangle on both the rear of the hull sides and on the side turret stowage box. Another interesting feature of this unit's marking was the use of the Tank Destroyer insignia painted on the front of the hull side.



M10 17 pdr. Achilles, Egyptian Anti-Tank Regiment, Sinai desert, 1948 Mid-East War.
The Egyptian Army had a small number of M10 17 pdr. tank destroyers in service in 1948, turned over by Britain after World War 2. These were standard vehicles, with small changes including smoke mortar dischargers. Markings at the time were very simple, a black Arabic number 3 on the turret side over the pale stone paint scheme.

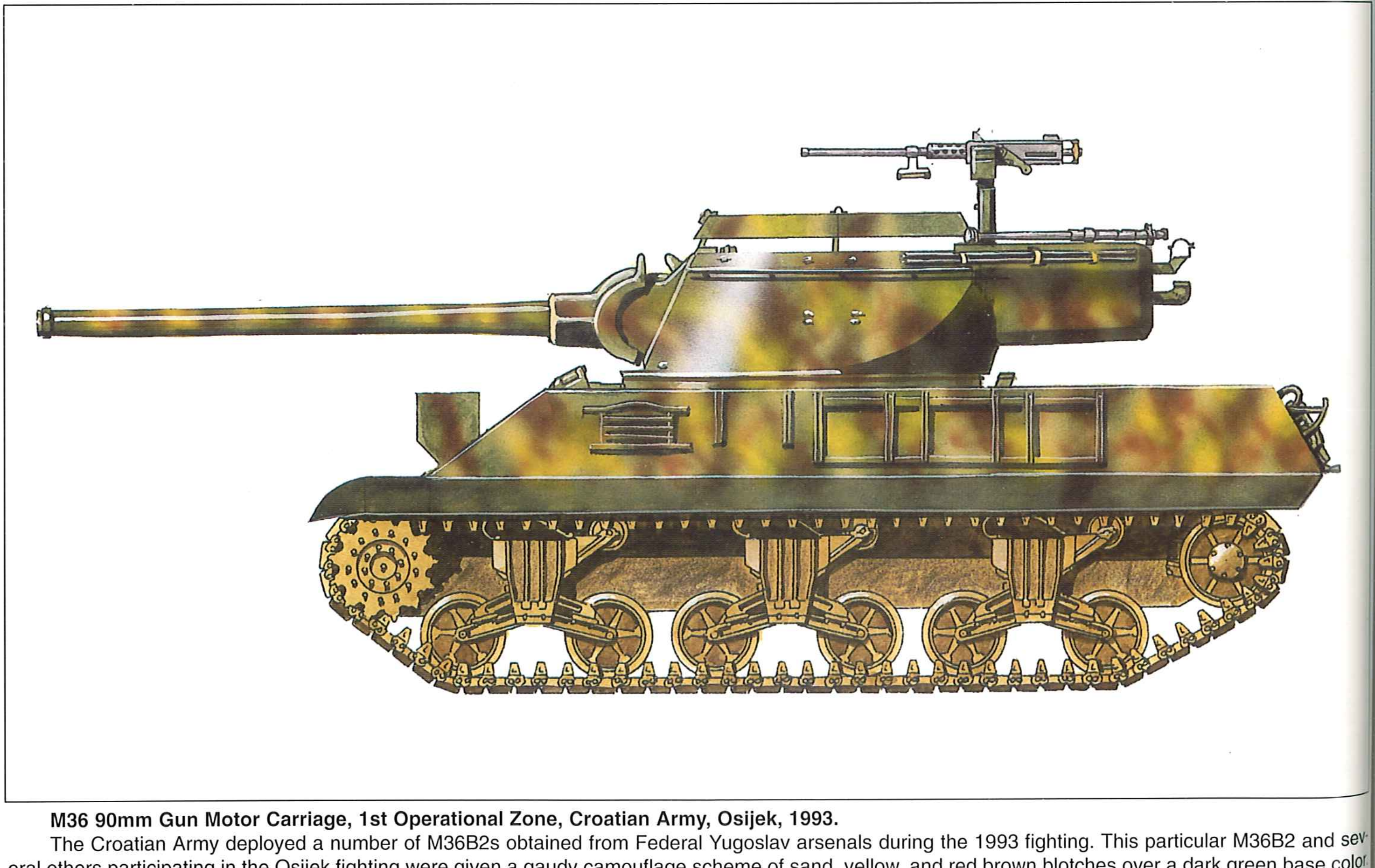


M36B2, RBCEO (*Regiment Blinde Colonial Extreme Orient*), Tonkin, French Indochina, 1951.
The Far East Colonial Armor Regiment was the only French armor unit in Indochina equipped with the M36B2. These vehicles were specifically sent to Indochina as a potential counterweight to the introduction of Chinese tanks, a possibility that was feared in 1950 after Chinese troops intervened in Korea. These vehicles remained in the usual US style olive drab. The RBCEO insignia was a knight's helmet over crossed cannons in white, superimposed on a yellow anchor. The M36B2 often had added machine guns as seen here.



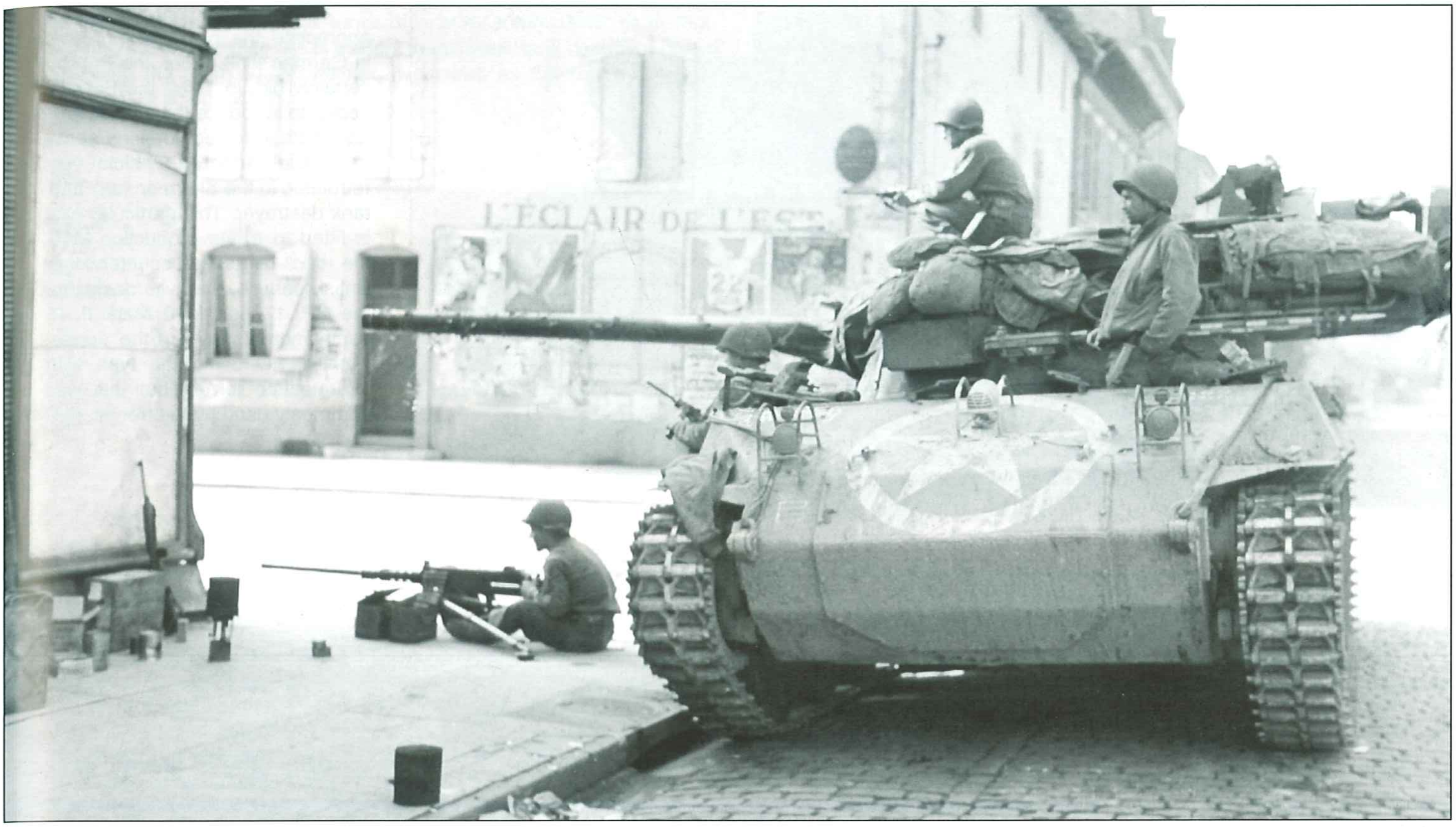
M36 90mm Gun Motor Carriage, Dubrovnik Brigade, Croatian Army, 1993.

During the fighting along the Dalmatian coast in 1992-93, the Croatian forces seized a number of M36B2s from former Federal Yugoslav arsenals. These vehicles had some local modifications, notably an added headlight cover. Yugoslav vehicles were painted in an overall dark green, but the Croatian forces added sprayed-on bands of earth brown, trimmed with sprayed on thin bands of mustard yellow. The vehicle retains its original Yugoslav three digit white serial (077), and the name TOPOVNJACA was added on the turret side and on the bow centered immediately above the transmission housing. This tank was credited with sinking a Serbian patrol boat during the fighting. At some point, this vehicle had the fume extractor and muzzle brake removed.

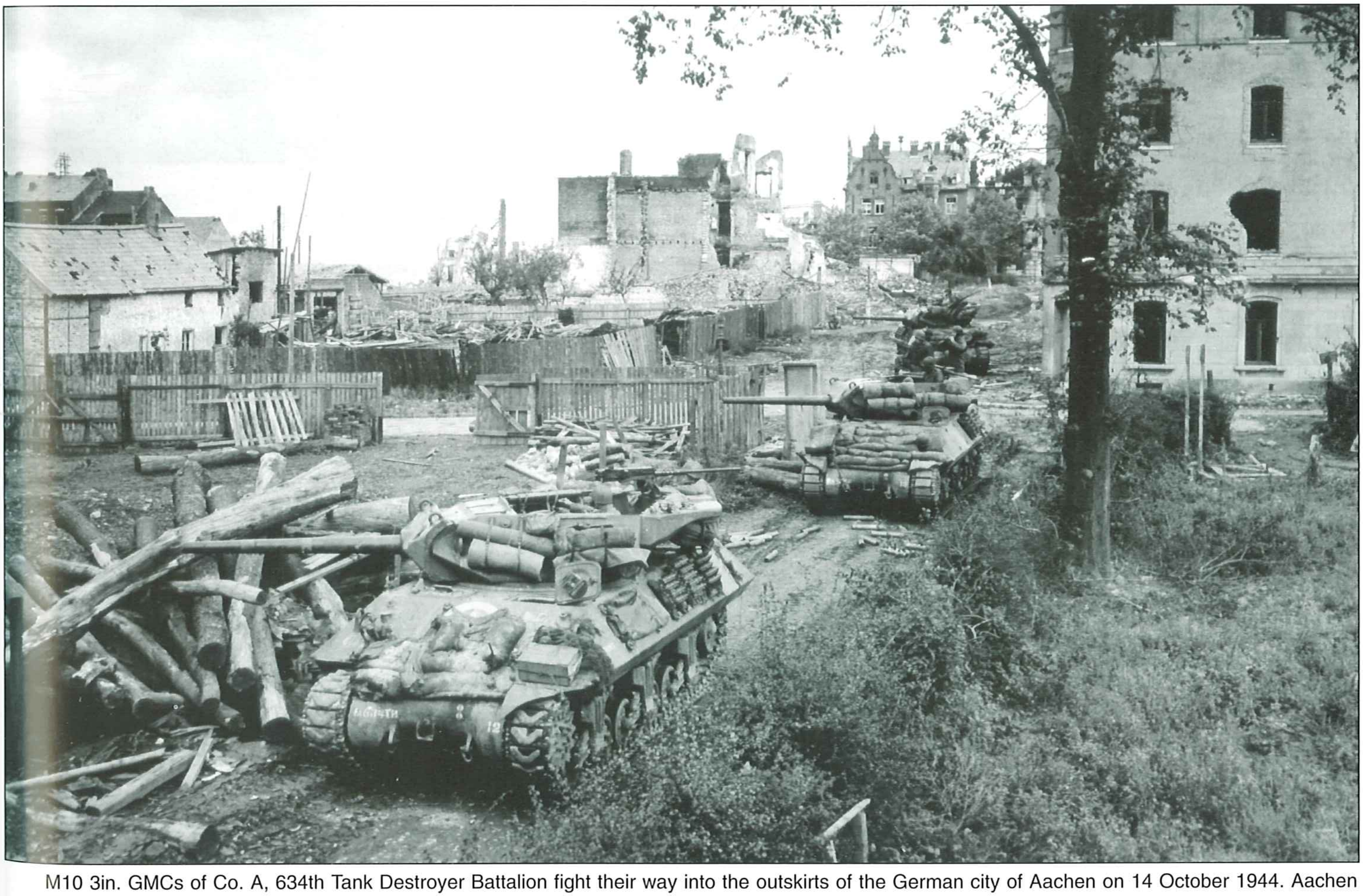


M36 90mm Gun Motor Carriage, 1st Operational Zone, Croatian Army, Osijek, 1993.

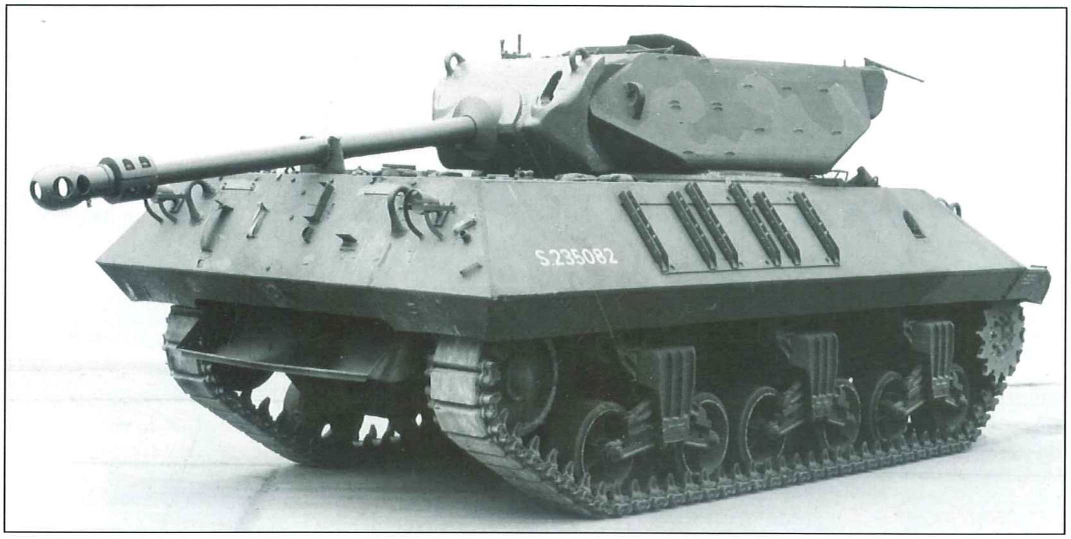
The Croatian Army deployed a number of M36B2s obtained from Federal Yugoslav arsenals during the 1993 fighting. This particular M36B2 and several others participating in the Osijek fighting were given a gaudy camouflage scheme of sand, yellow, and red brown blotches over a dark green base color. No other tactical markings were carried.



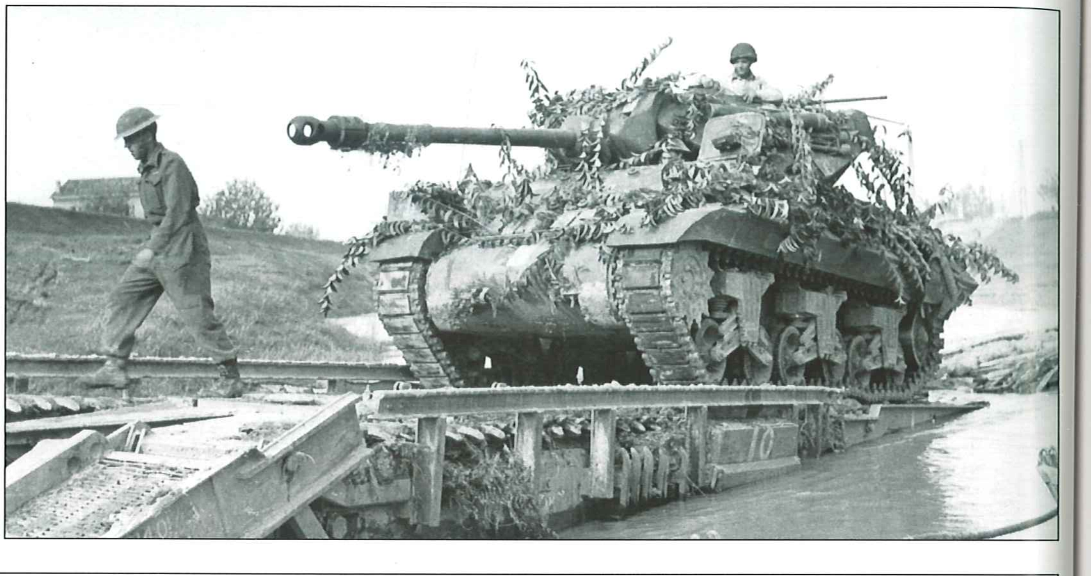
A M18 76mm GMC guards a street junction in the town of Frambois, France on 22 September 1944. Beside the vehicle is a tripod mounted M2 Browning heavy machine gun, probably the machine gun of the tank destroyer dismounted from its anti-aircraft mount. This provides a clear view of the large Allied star typically painted on the bow of the M18.



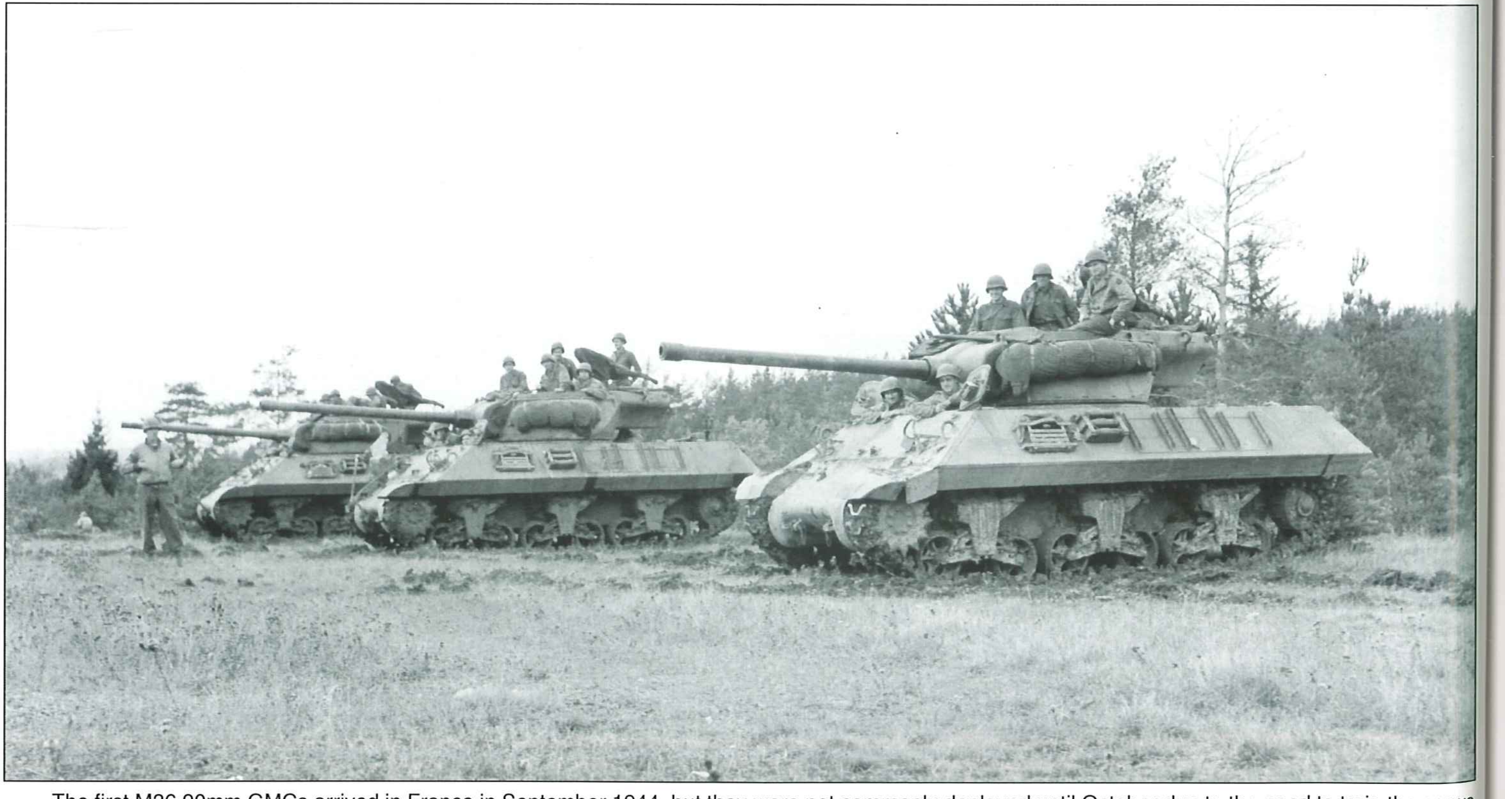
M10 3in. GMCs of Co. A, 634th Tank Destroyer Battalion fight their way into the outskirts of the German city of Aachen on 14 October 1944. Aachen was the first German city entered by Allied forces, and the fighting there was particularly intense. The M10s are late production types with the improved duck-bill turret counterweights. Notice that these vehicle have begun to carry sand-bags on the glacis plate, an attempt to provide added protection to the thin frontal armor against German *panzerfaust* anti-tank rockets.



Although the US Army failed to appreciate the growing improvements in German tank armor, the British most certainly did. In 1944, the British Army began to introduce the 17 pdr. anti-tank gun, both in towed versions as well as in special armored vehicle versions retrofitted to the Sherman tank and M10 tank destroyer. This particular example is fitted to a late production M10 with the duck-bill turret counterweight. In British service, this was designated as the SP, 17 pdr. M10 Mark II. It was sometimes also called the Achilles IIC (Achilles IC being the type with the intermediate turret), but this was not commonly used by the troops. (IWM)

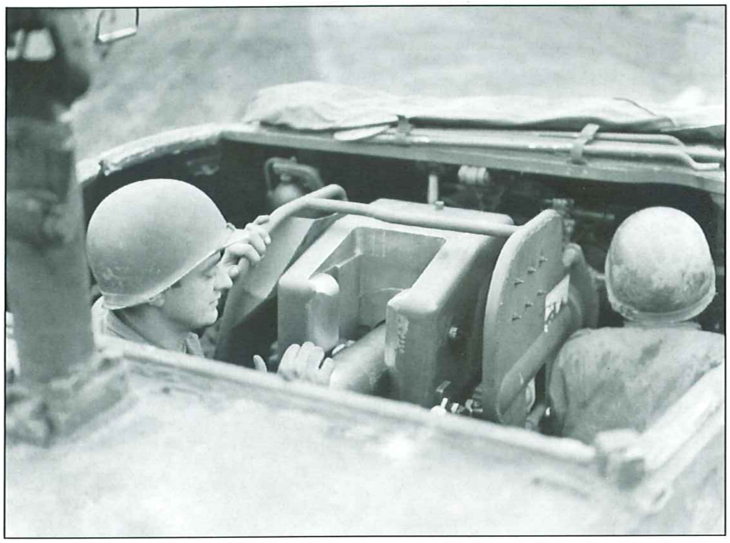


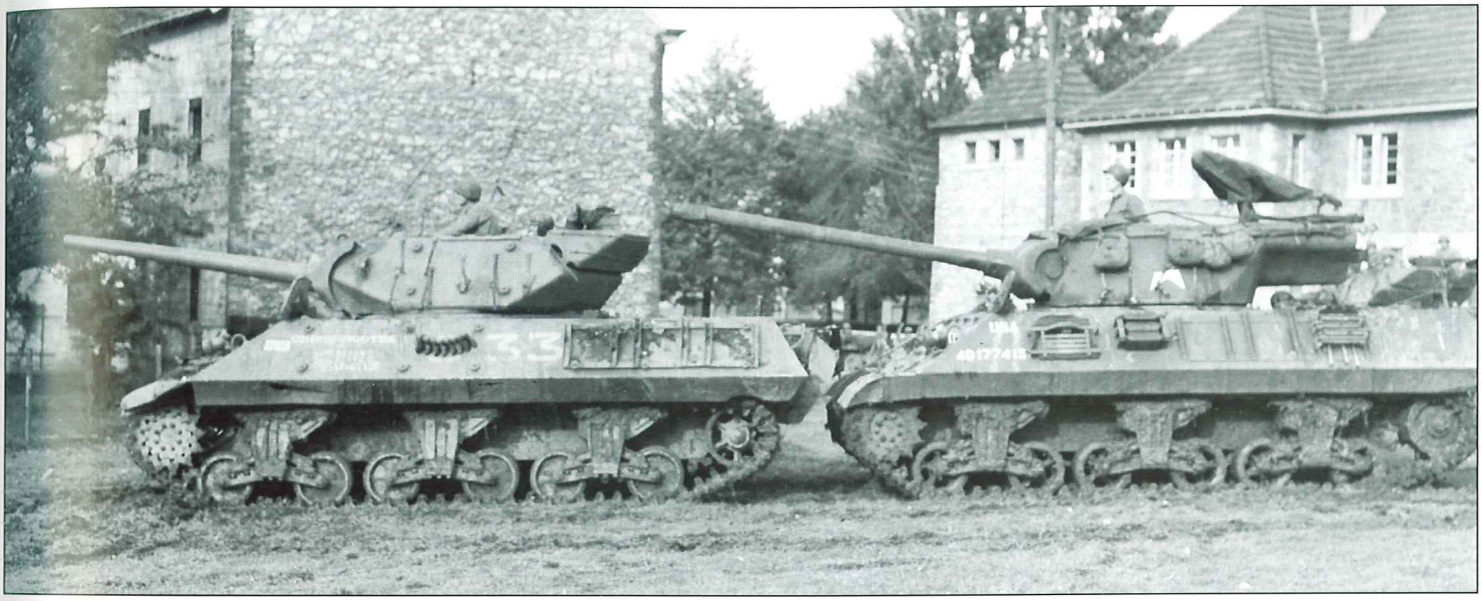
The 17 pdr. M10 served not only in France, but in Italy as well due to frequent encounters with German Panthers and Tigers in 1944. Here, a 17 pdr. M10 of the 93rd Anti-Tank Regiment crosses the Savio river in Italy on 24 October 1944, over a Churchill ARK. The 17 pdr. M10s were brought forward to assist Churchill tank units in the lead which had encountered Panthers, emplaced Panther turret panzerstellungs and Tiger Is defending the bridgehead area. (IWM)



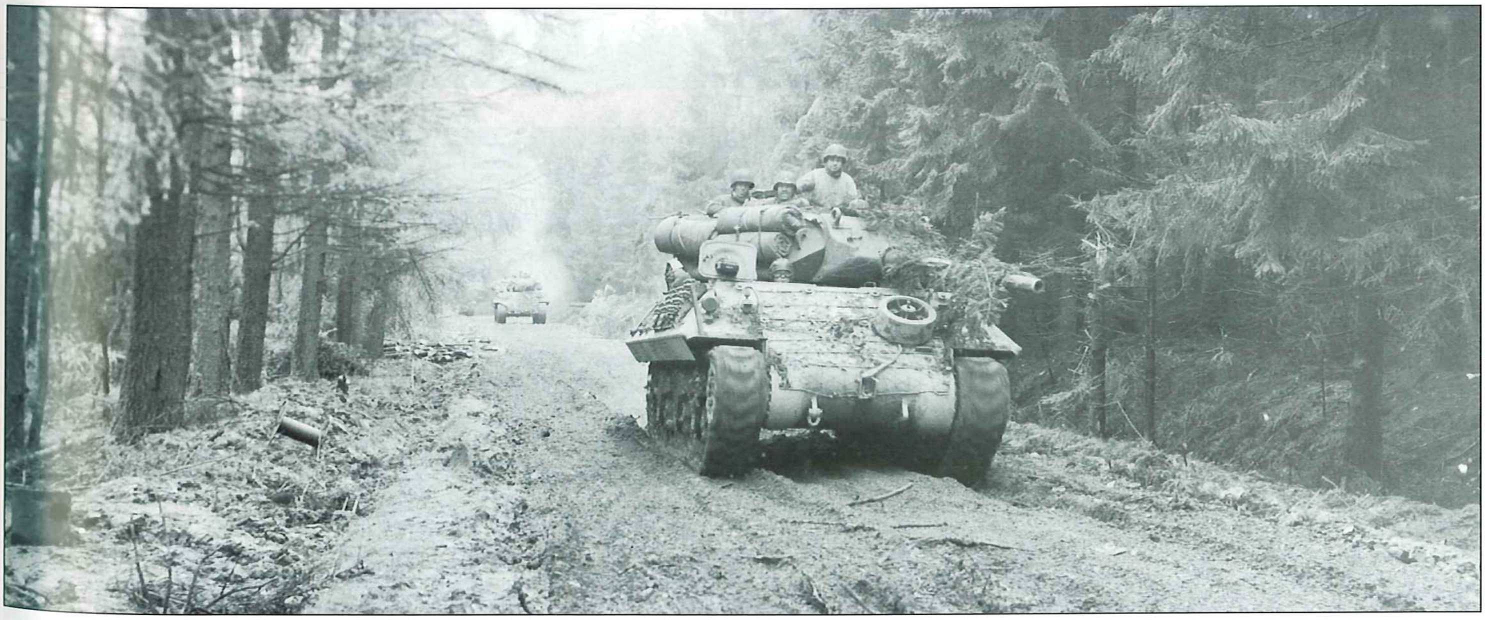
The first M36 90mm GMCs arrived in France in September 1944, but they were not commonly deployed until October due to the need to train the crews and create adequate logistical support. Here a unit trains on the new vehicles in France on 14 October 1944.

A close-up view inside the turret of a M36 90mm GMC near Toul, France on 24 October 1944. As is evident in this view, tank destroyer crews usually wore the normal steel helmet in combat, as the tanker's helmet offered no ballistic protection.

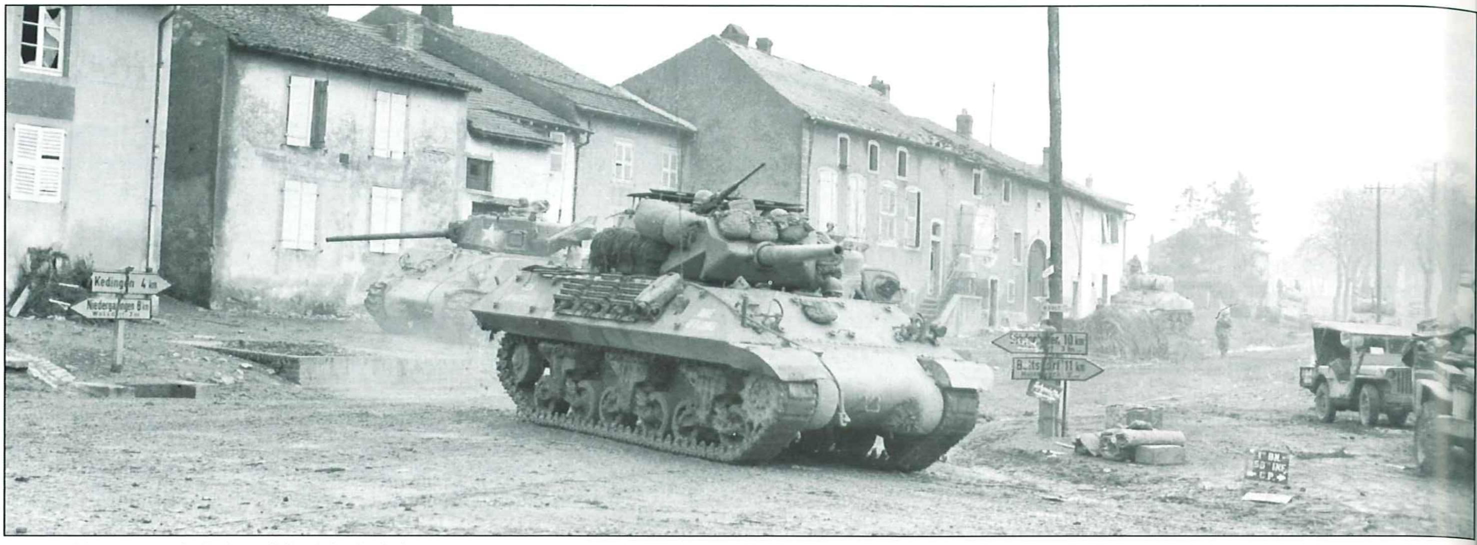




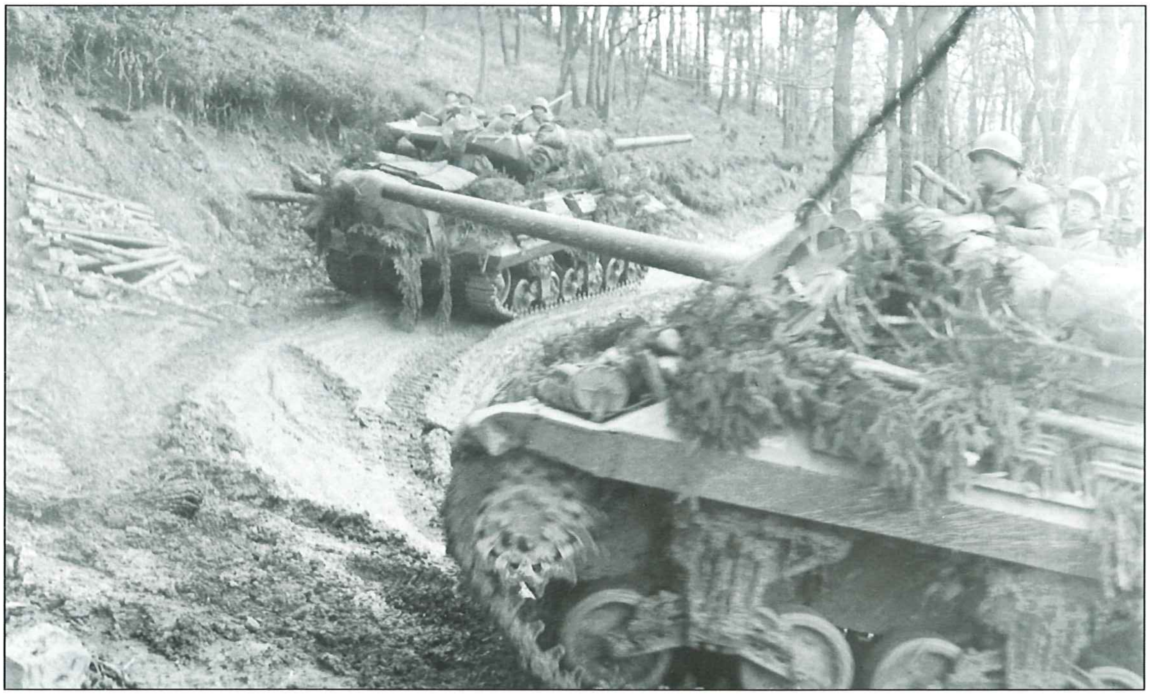
This interesting comparison view shows the M10 3in. GMC in front of one of the new M36 90mm GMC in the town of Stelburg, Germany with the 703rd Tank Destroyer Battalion on 24 October 1944. The new M36 finally redressed the problem of dealing with heavier German tanks such as the Panther and Tiger I.



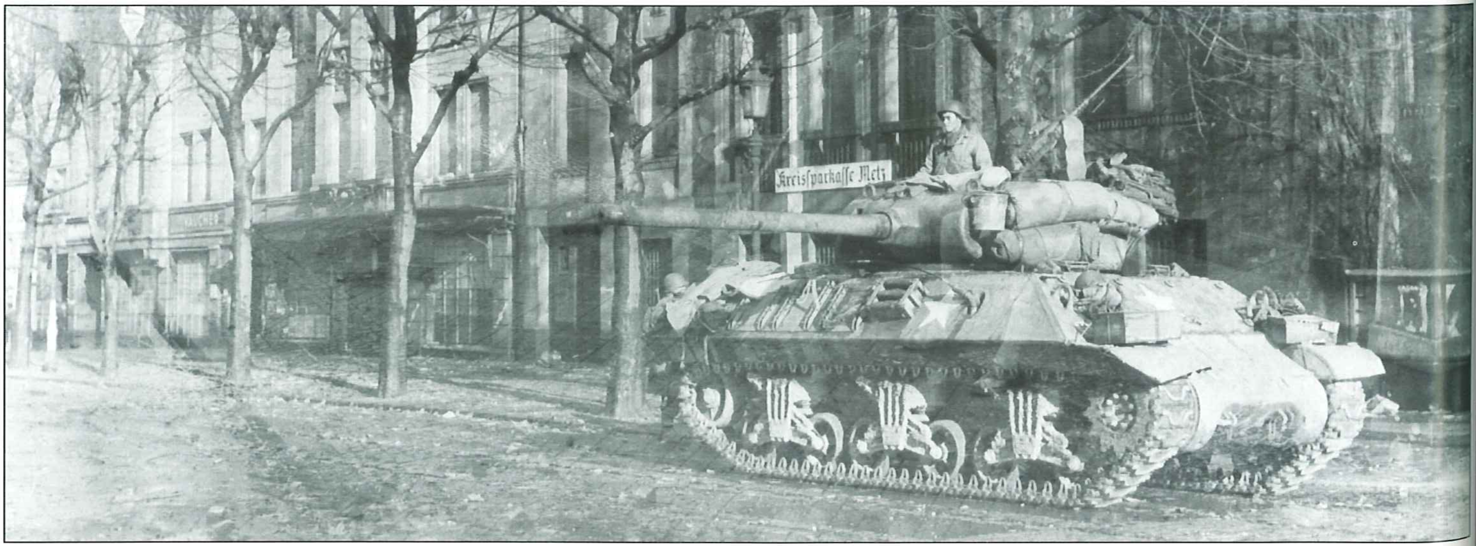
A M10 3in. GMC of the 893rd Tank Destroyer Battalion drives down a road towards Schmidt in the Huertgen forest in Germany on 4 November 1944. The tank destroyers were brought up in an attempt to reinforce US infantry that had been subjected to a tank attack by Panthers of the 116th Panzer Division that day. Three M4 tanks were the first to arrive, and blunted the German attack. The fighting in the Huertgen forest, mainly by US Army infantry units, was one of the bloodiest campaigns of the US Army in Europe in 1944-45.



A M10 named "Puke of Paduka" of the 712th Tank Destroyer Battalion rolls through Metzervisse, Germany on 17 November 1944 while in support of the 90th Division near French Maginot line fortifications. This unit had beaten off an armored attack by a *kampfgruppe* of the 25th Panzer Grenadier Division two days before near the Moselle river crossing, and on 14 November was part of a large US armored force attempting to clear out the area on the east bank of the river north of the fortress city of Metz.

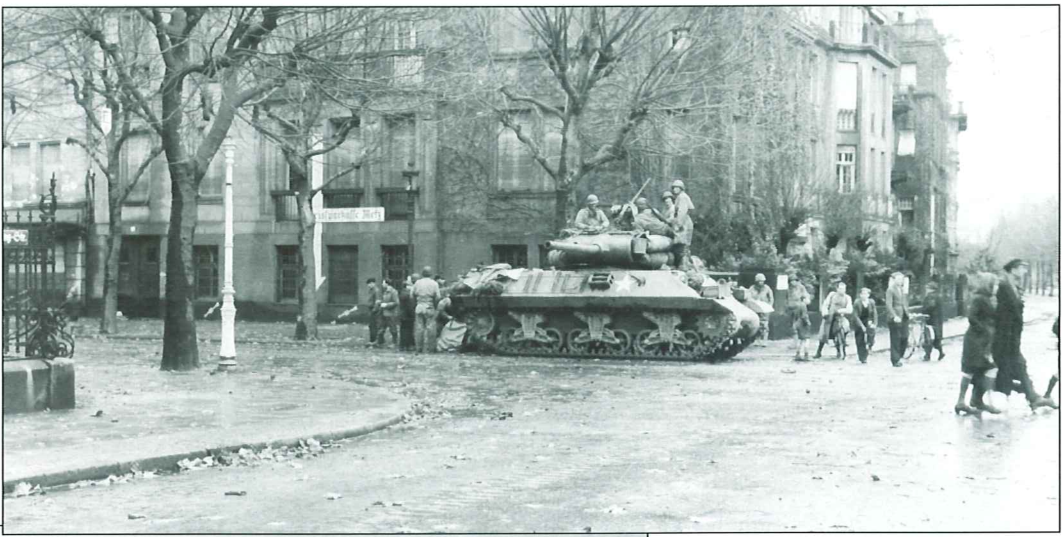


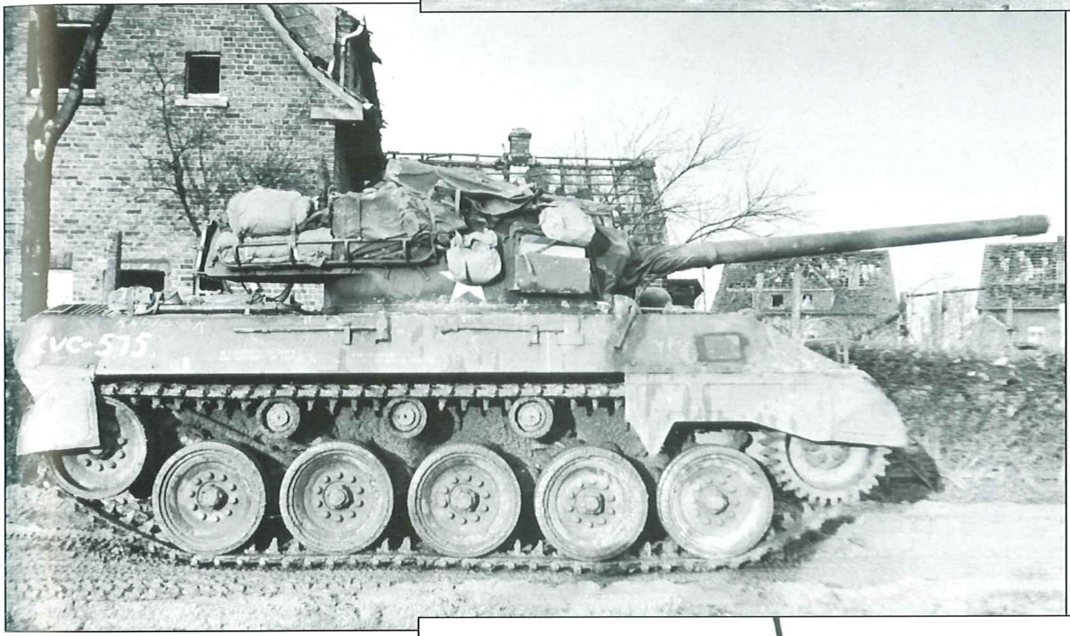
A pair of M10s move up a steep forest road in the Huertgen forest on 18 November 1944 during attempts to reinforce US infantry units fighting in the forest during the second phase of the battle that started on 16 November 1944. The US units were not able to fight their way through the shell-shattered woods until early December, after suffering horrible casualties.



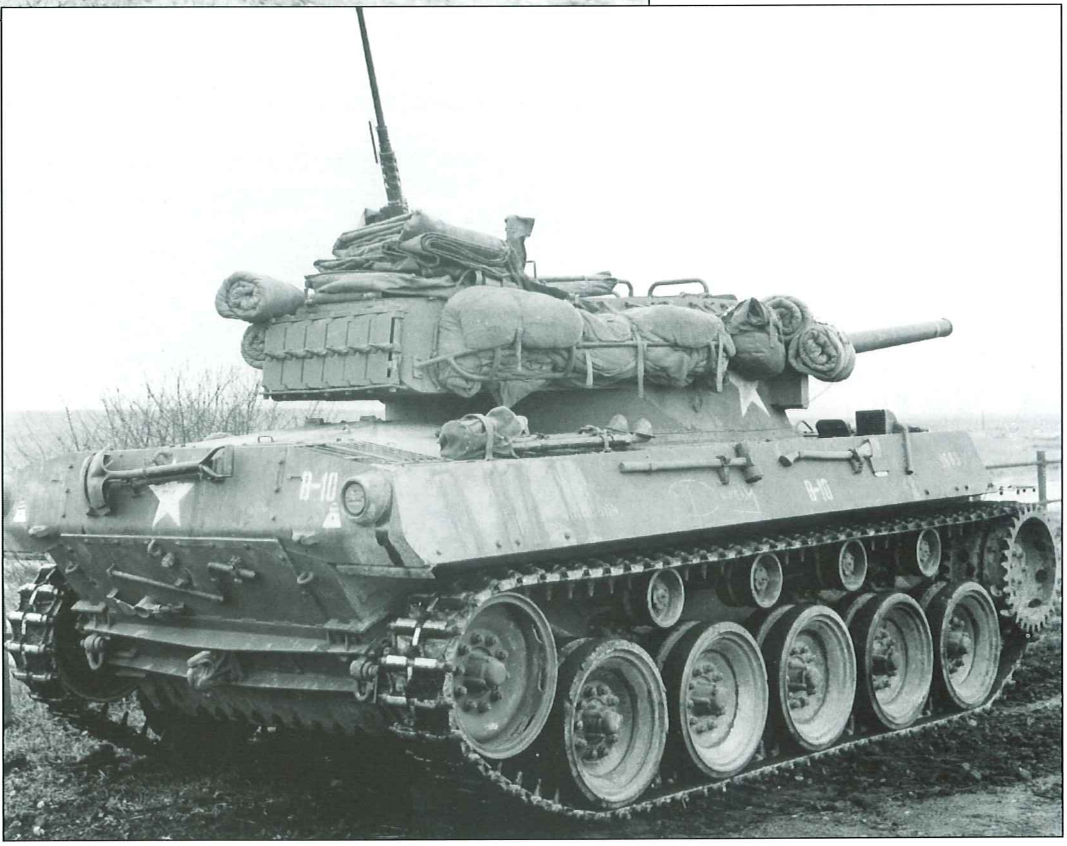
A M36 90mm GMC of Co. C, 607th Tank Destroyer Battalion, takes up position in Metz on 20 November 1944. Patton's Third Army made a failed attempt to seize the city in September, and finally succeeded on 19 November when two infantry regiments and Task Force Bacon made their way into the city.

Another view of the same M36 taken a day later in Metz, with the French civilians finally emerging from their basements. Metz is a fortress city on the German-French frontier that has often been contested. Patton later boasted that his troops were the first to capture the fortress city since Attila the Hun in A.D. 415.

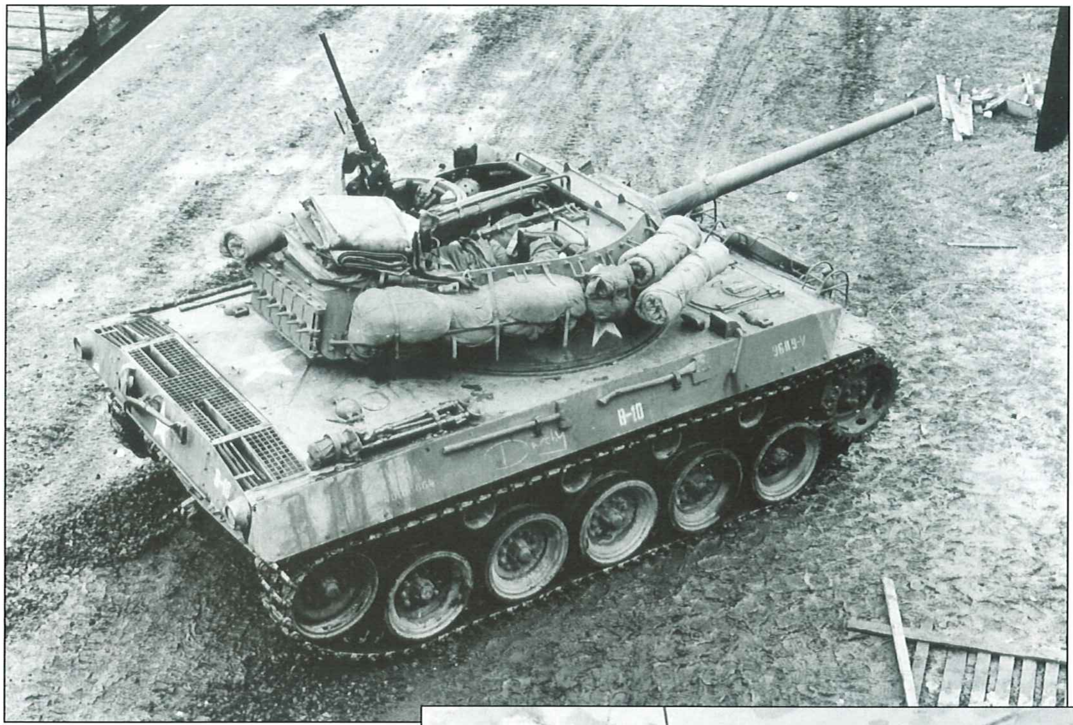




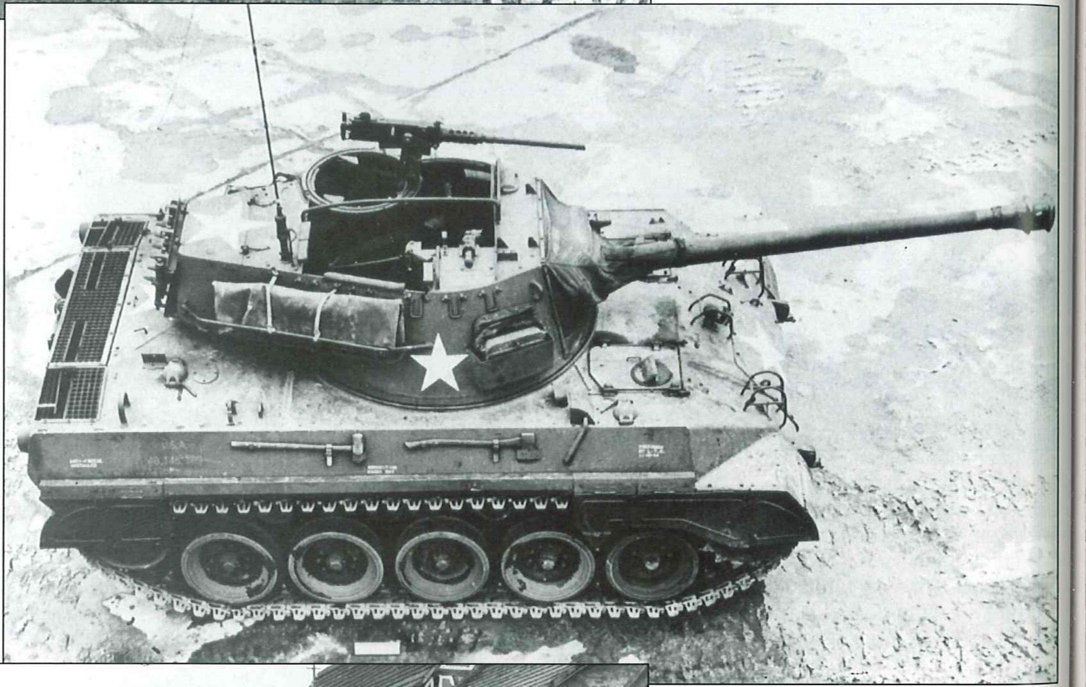
A M18 76mm GMC in Immendorf, Germany on 11 December 1944. This view clearly shows the mud-guards designed for this vehicle. These were frequently lost in action, or removed by the crew as they interfered with maintenance on the suspension. Immendorf had been the site three weeks earlier of a major tank battle with the 9th Panzer Division.



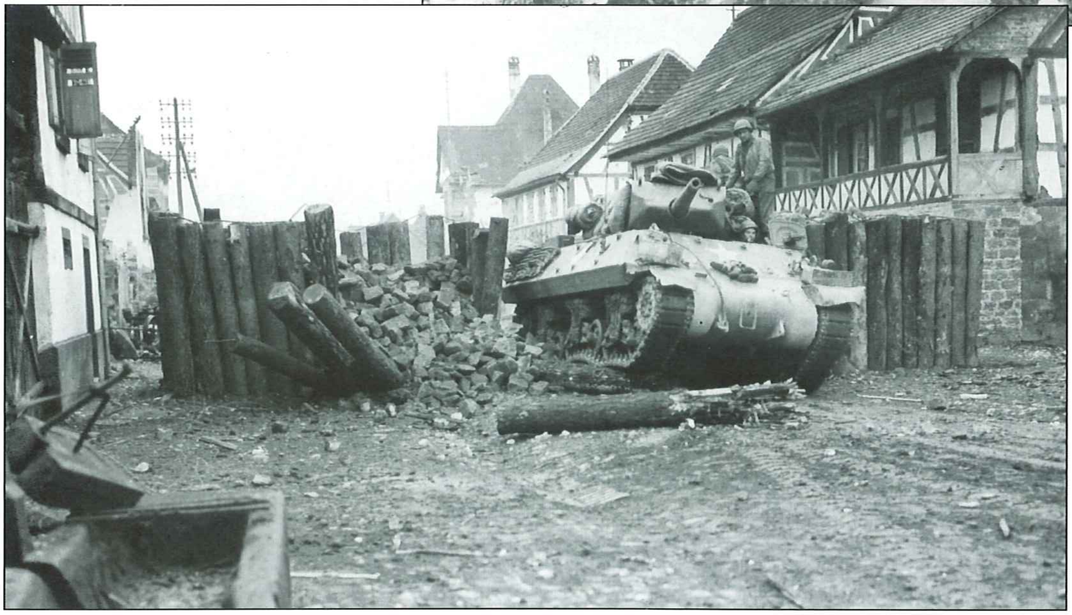
A M18 76mm GMC of Co. B, 827th Tank Destroyer Battalion near Saareburg, Germany on 13 December 1944. This unit had used towed 3in. guns, but converted to M18s in late July 1944; it was committed to action in Europe in November 1944. This gives a very good view of the typical stowage patterns of the crew and vehicle stores.



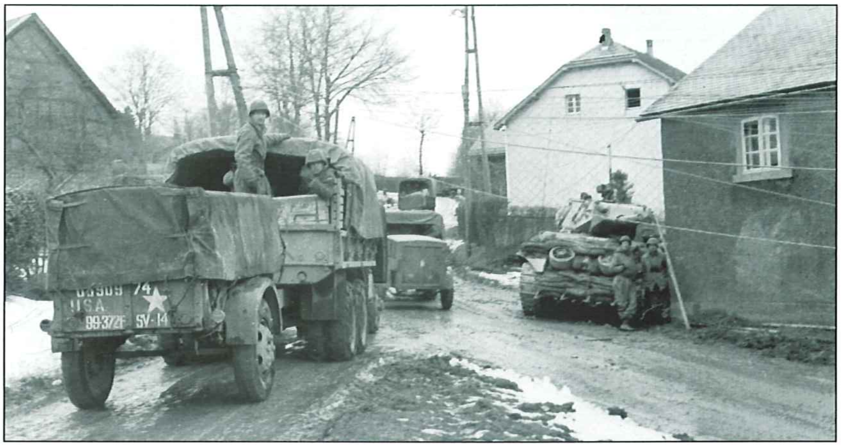
Another view of "Dorothy" from Co. B, 827th Tank Destroyer Battalion, providing a view of many of the technical details of the vehicle.



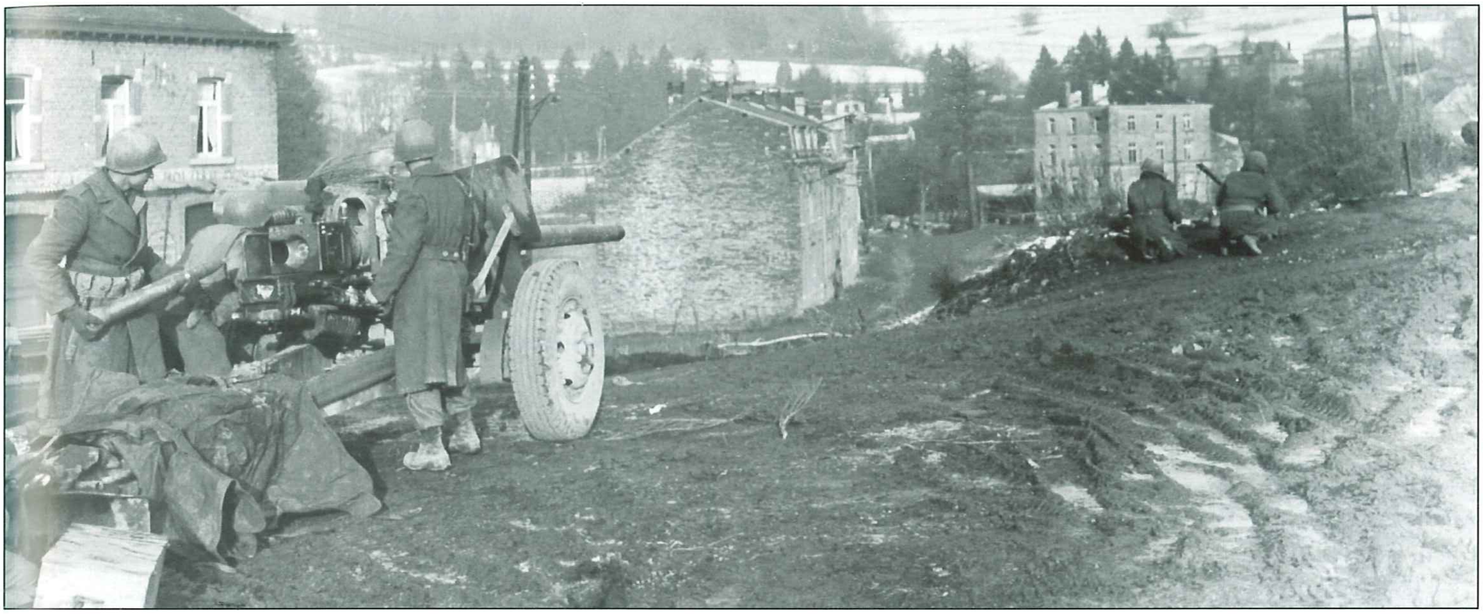
Another overhead view of an M18 76mm GMC, this time, a late production vehicle with far less extensive stowage. This vehicle is fitted with the muzzle brake, as well as a full set of dust guards.



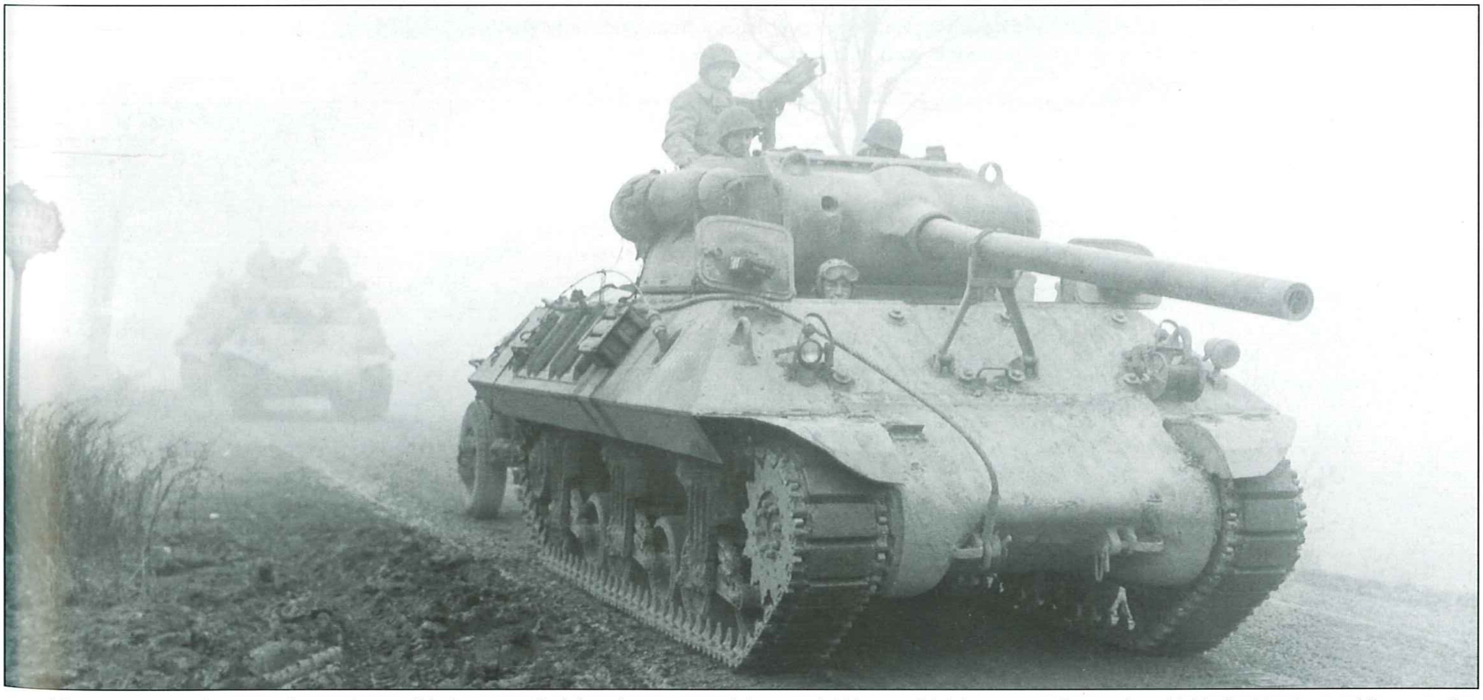
A M10 3in. GMC of the 645th Tank Destroyer Battalion crunches over the remains of a timber road block as it enters Lembach, France in support of the 45th Division, Seventh Army on 14 December 1944. Lembach was a key road junction and the road barriers had been erected in hopes of slowing the US advance.



A M10 3in. GMC performs rearguard duties as units of the First Army withdraw through Wirtzfield, Belgium on 17 December 1944 in the opening phases of the Battle of the Bulge. The M10 still retains the Culin hedgerow cutters fitted during the Normandy campaign, and has had a layer of sandbag protection fitted over the bow.

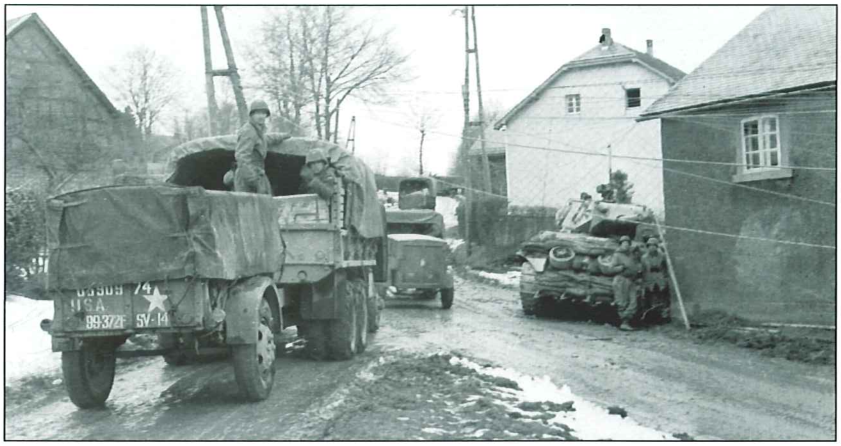


A portion of the tank destroyer battalions were equipped with M5 towed 3in. guns like this weapon covering a road junction in the 7th Armored Division sector near Vielslm, Belgium on 23 December 1944. Although several of these units distinguished themselves by determined stands during the Battle of the Bulge, the lack of mobility and protection of these towed weapons led to widespread criticism in later assessments of the battles. As a result, the US Army began a program to rearm all towed battalions with M10s made surplus as other self-propelled units converted to M36s or M18s in 1945.

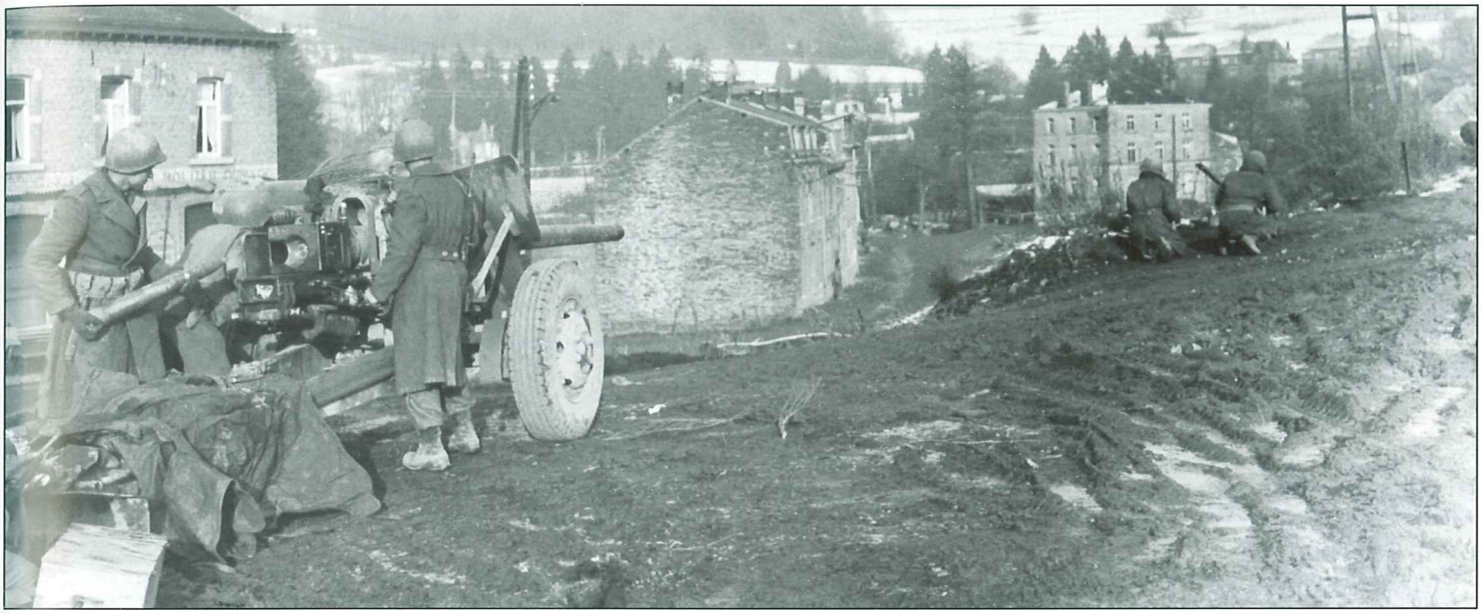


M36 90mm GMCs move forward near Werbomont, Belgium in support of the 82nd Airborne Division on 20 December 1944. At this stage of the war, the M36 was still relatively uncommon, with only 236 actually deployed. Nevertheless, they proved invaluable in the Ardennes fighting, as they were the only US Army vehicle capable of handling the Panther or Tiger tank.

Battle of the Bulge



A M10 3in. GMC performs rearguard duties as units of the First Army withdraw through Wirtzfield, Belgium on 17 December 1944 in the opening phases of the Battle of the Bulge. The M10 still retains the Culin hedgerow cutters fitted during the Normandy campaign, and has had a layer of sandbag protection fitted over the bow.



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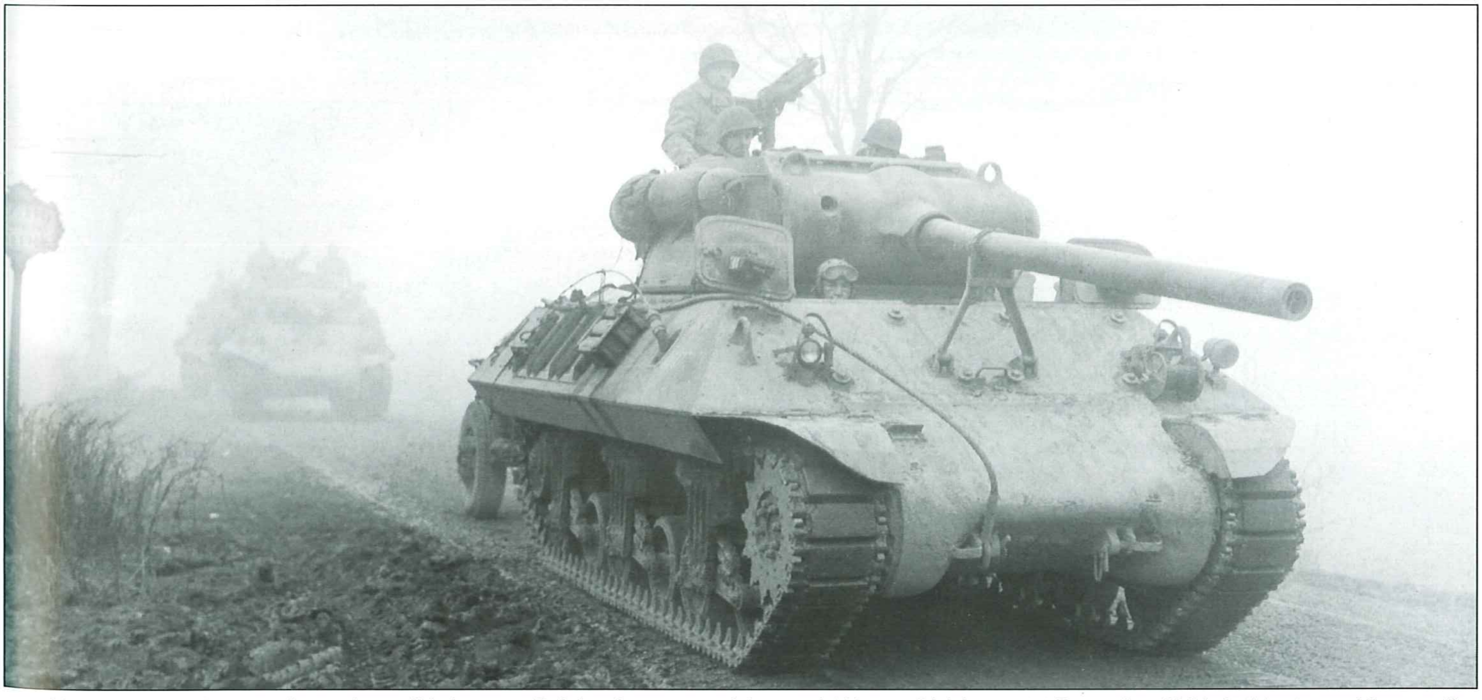

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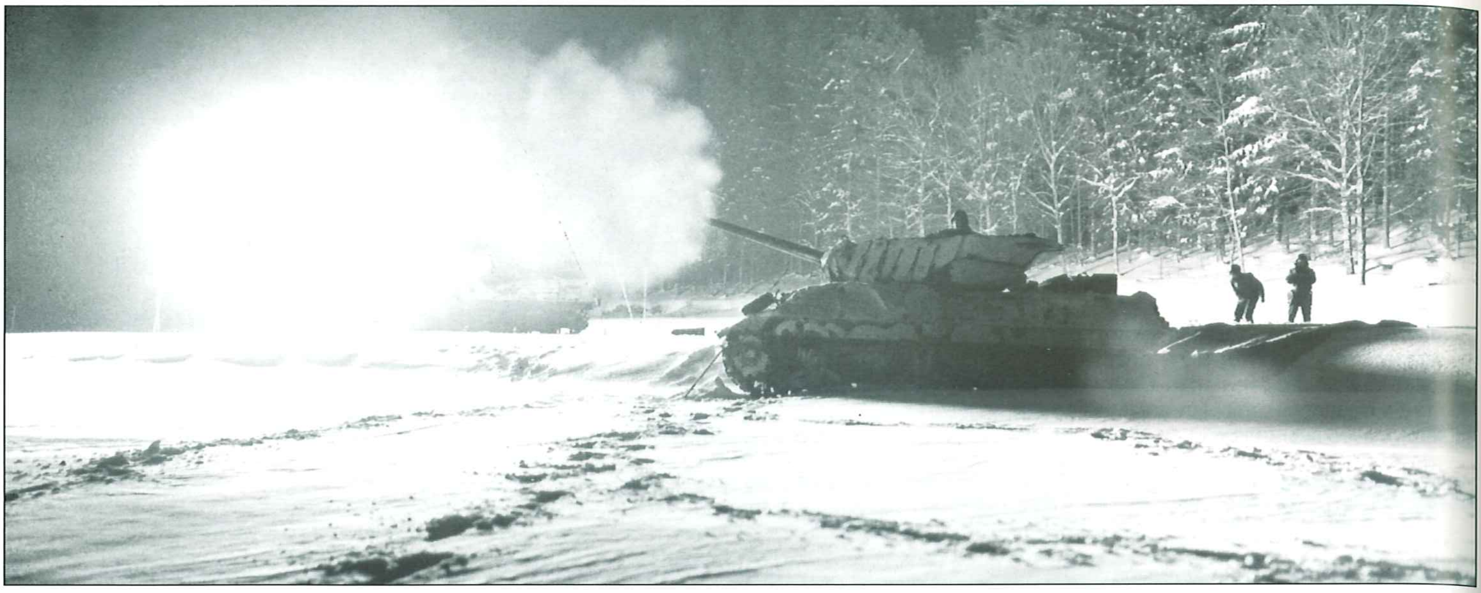
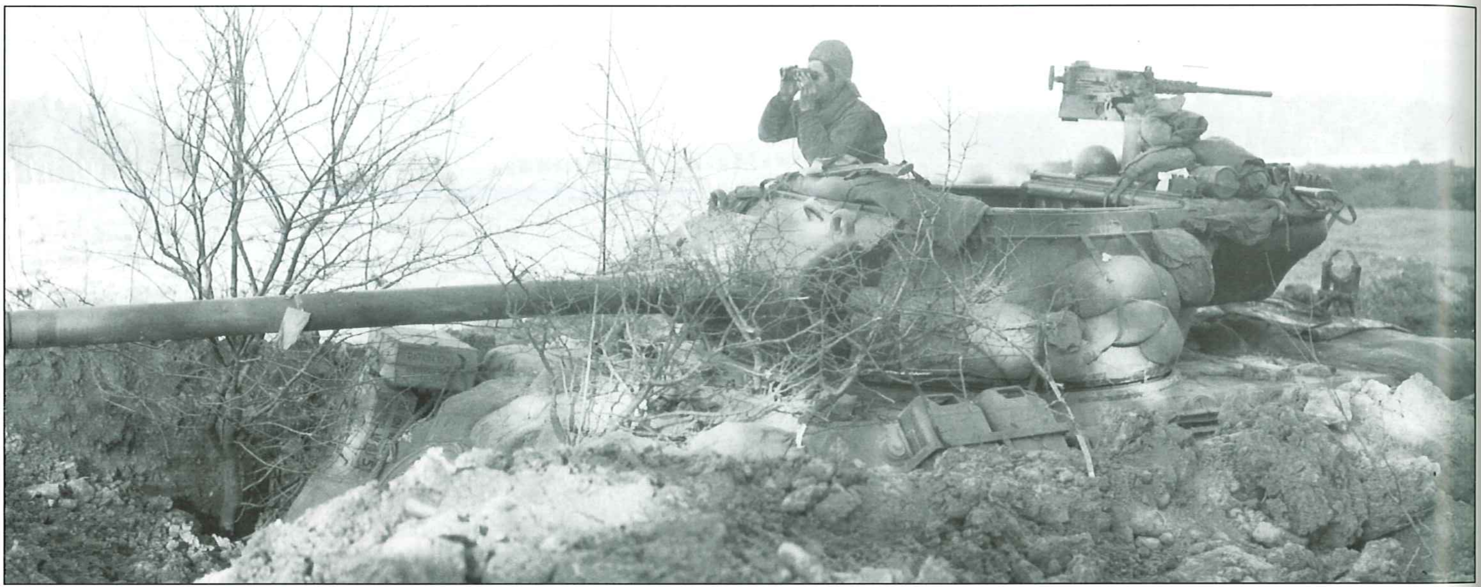
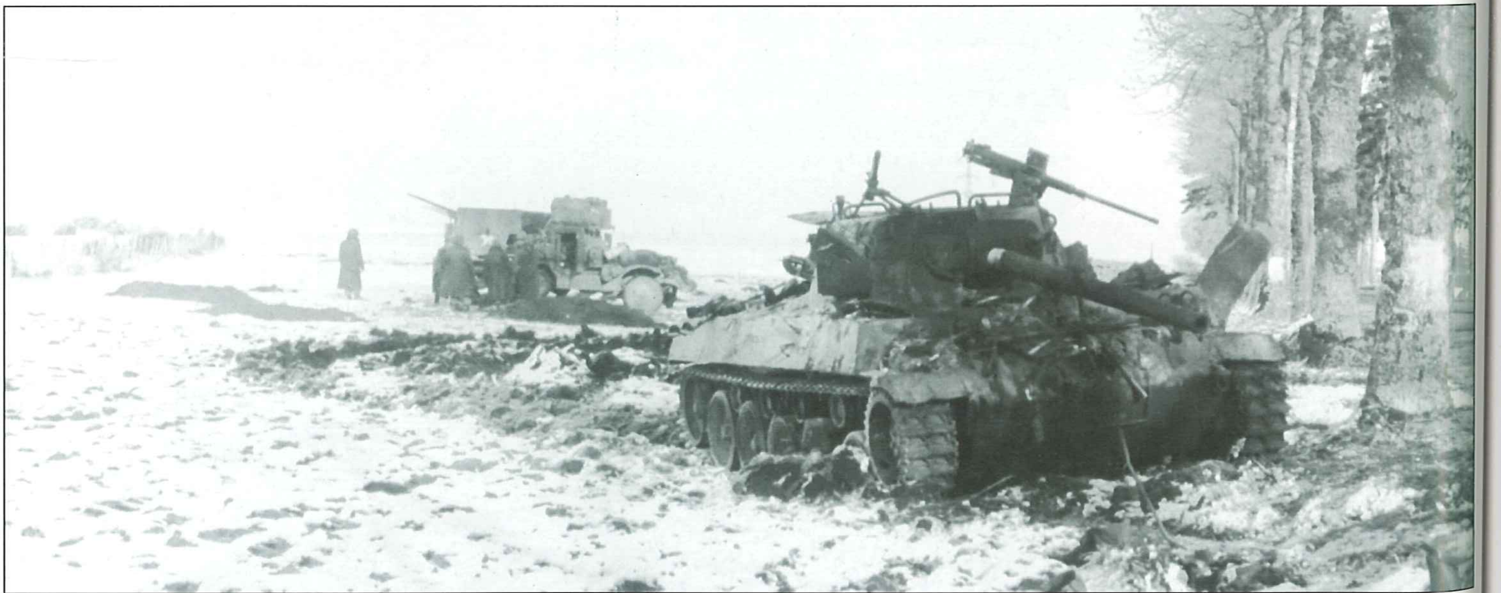


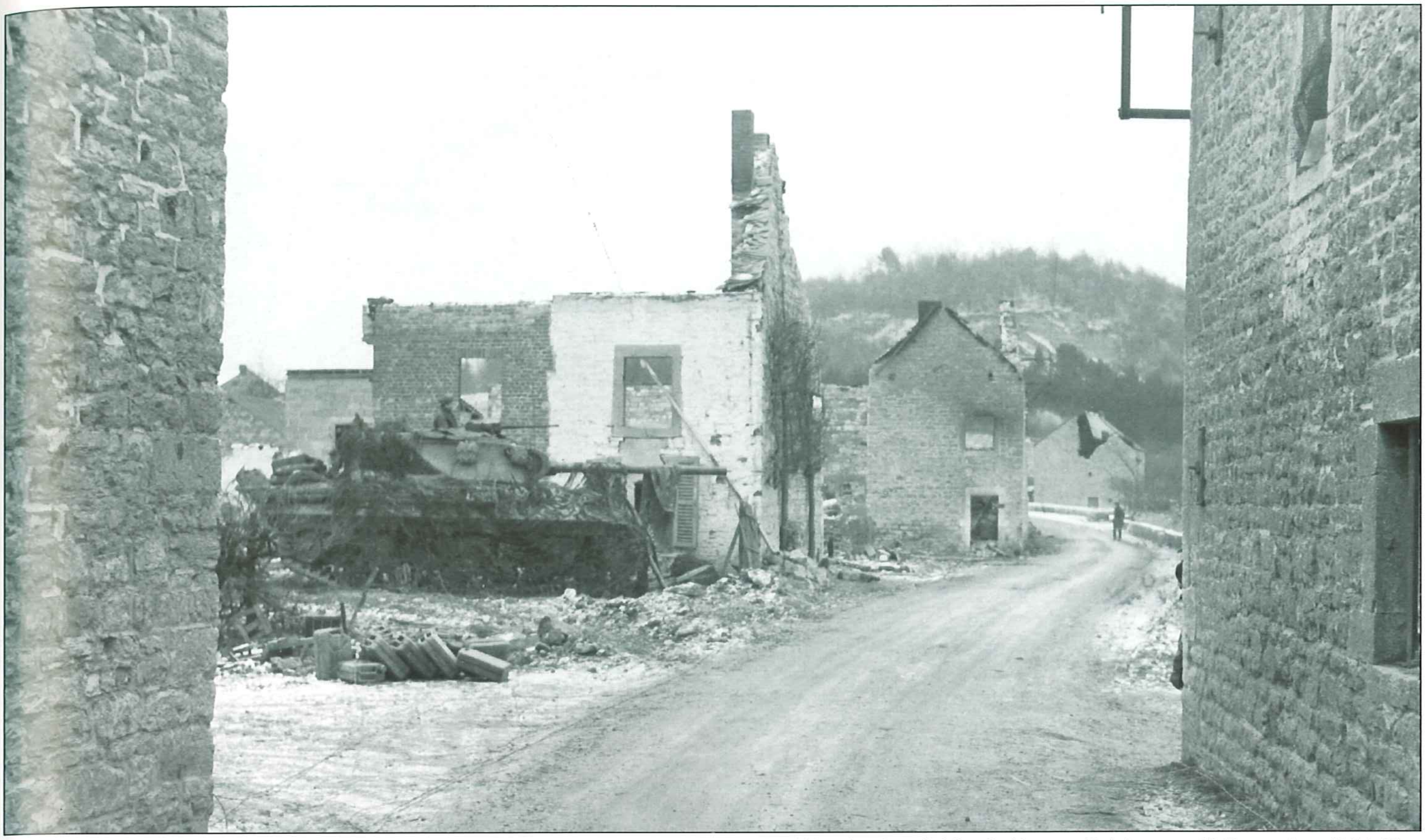
A M10 3in. GMC is dramatically lit by the blast of its own gun as it provides fire support.



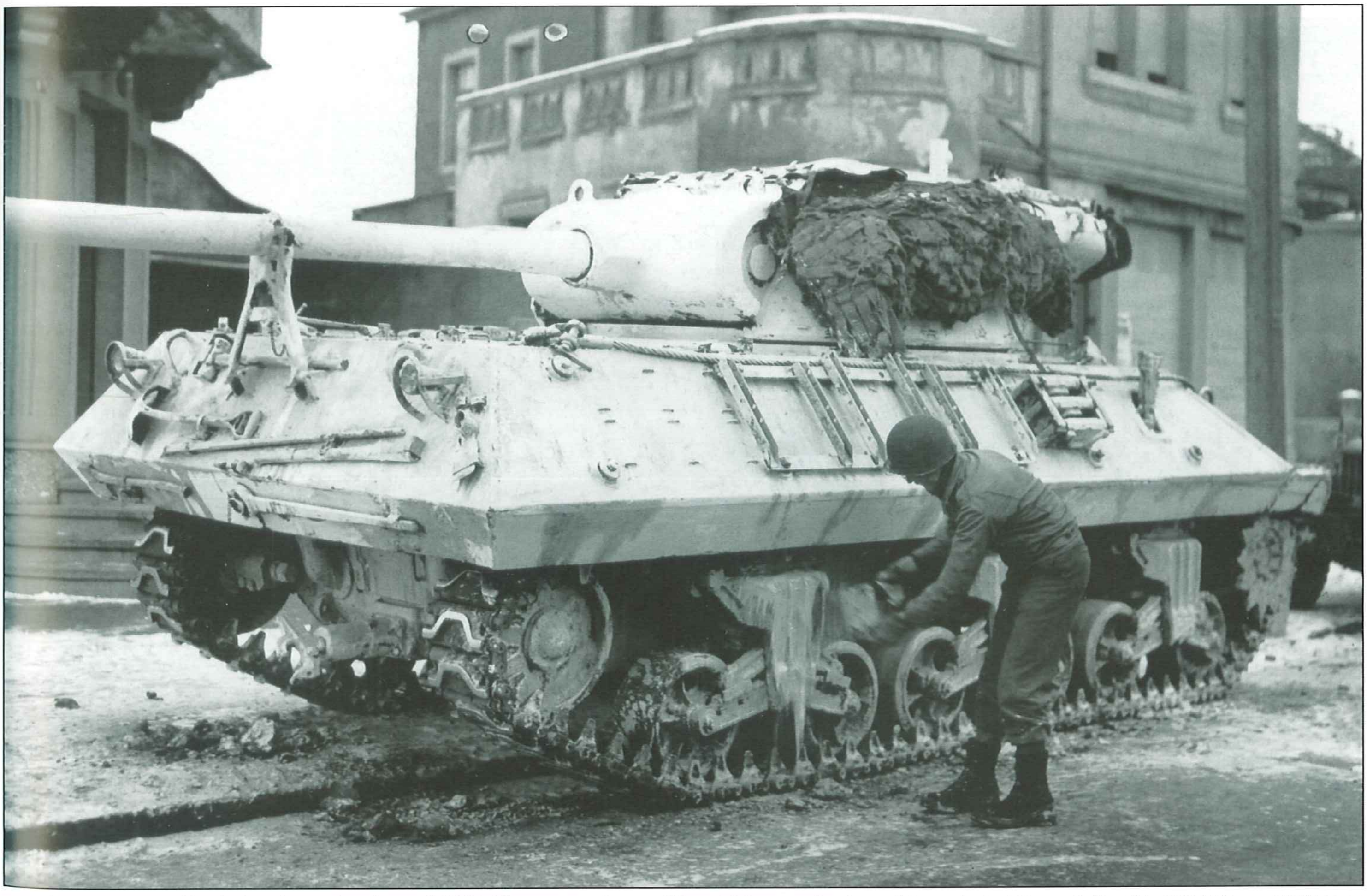
A dug-in M36 90mm GMC of the 814th Tank Destroyer Battalion covers a key crossroads near Manhay, Belgium on 27 December 1944 during the Battle of the Bulge. Manhay had been the scene of some of the most intense tank fighting of the battle in previous days. This battalion had only been reorganized and reequipped on 1 December 1944.



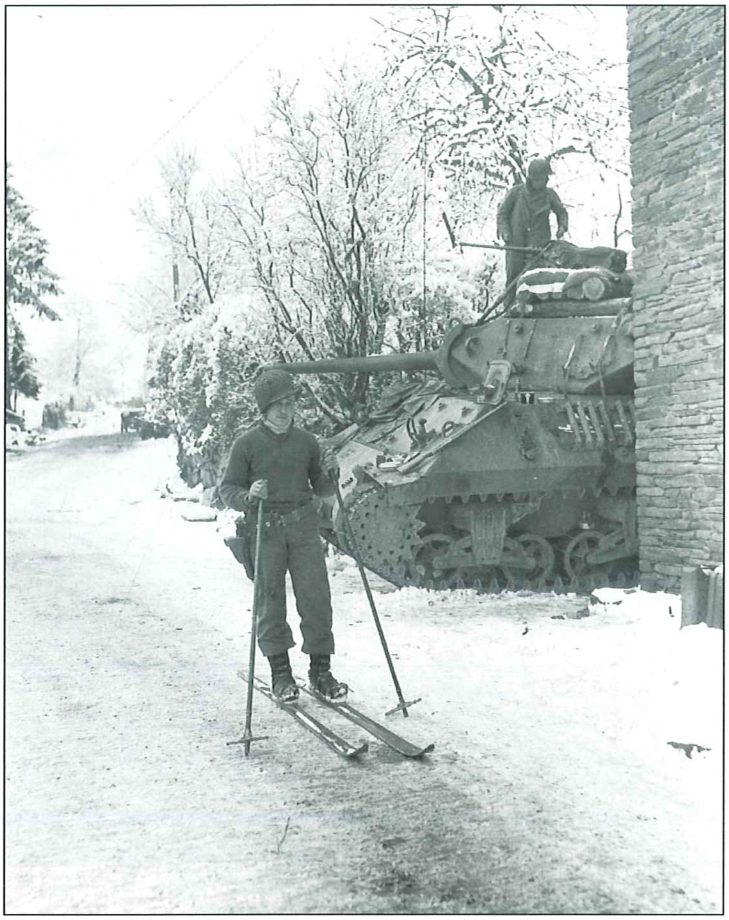
A M18 76mm GMC of the 704th Tank Destroyer Battalion and a M15A1 MGMC half-track from the 4th Armored Division lie knocked out on the southern approaches to Bastogne on 29 December 1944 after having been hit by German artillery fire. The 4th Armored Division was the spearhead of Patton's drive to relieve the besieged garrison in Bastogne, and M4 tanks of its 37th Tank Battalion were the first to break the German cordon earlier in the month.

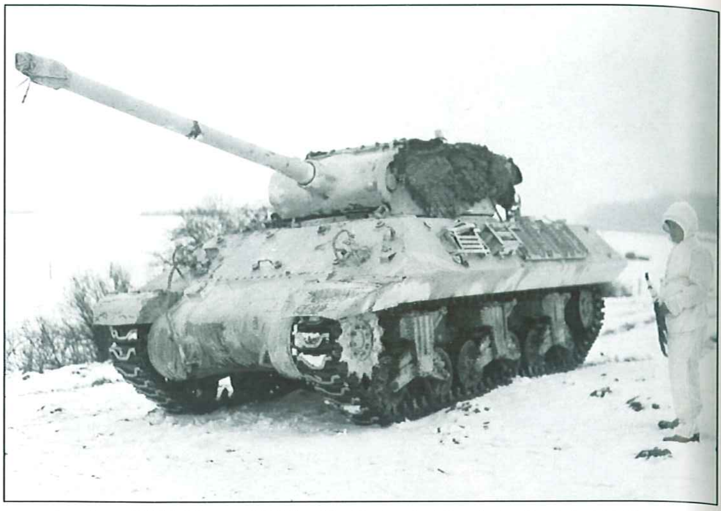


A M36 90mm GMC of the 628th Tank Destroyer Battalion stands guard over the L'Ourthe river bridge in Hotton, Belgium on 30 December 1944. The M36 is well concealed under a camouflage net.



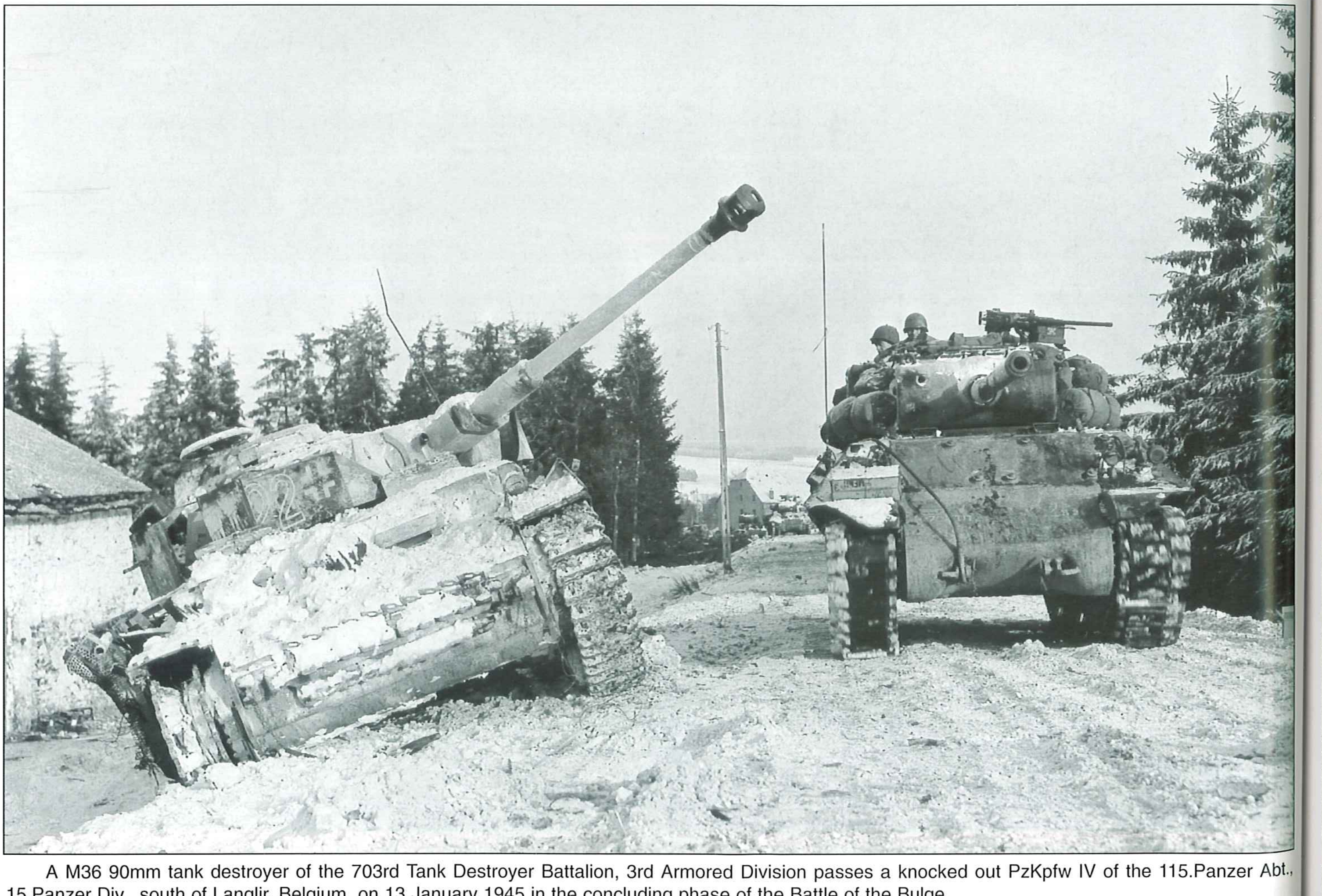
As snow closed in during the early winter of 1944-45, more and more US vehicles received a quick coat of whitewash like this M36 90mm GMC from one of the units of Patton's Third Army operating in Luxembourg in the final phase of the Battle of the Bulge on 3 January 1945. These paint jobs were often done in haste with mops, or in this case, with buckets.



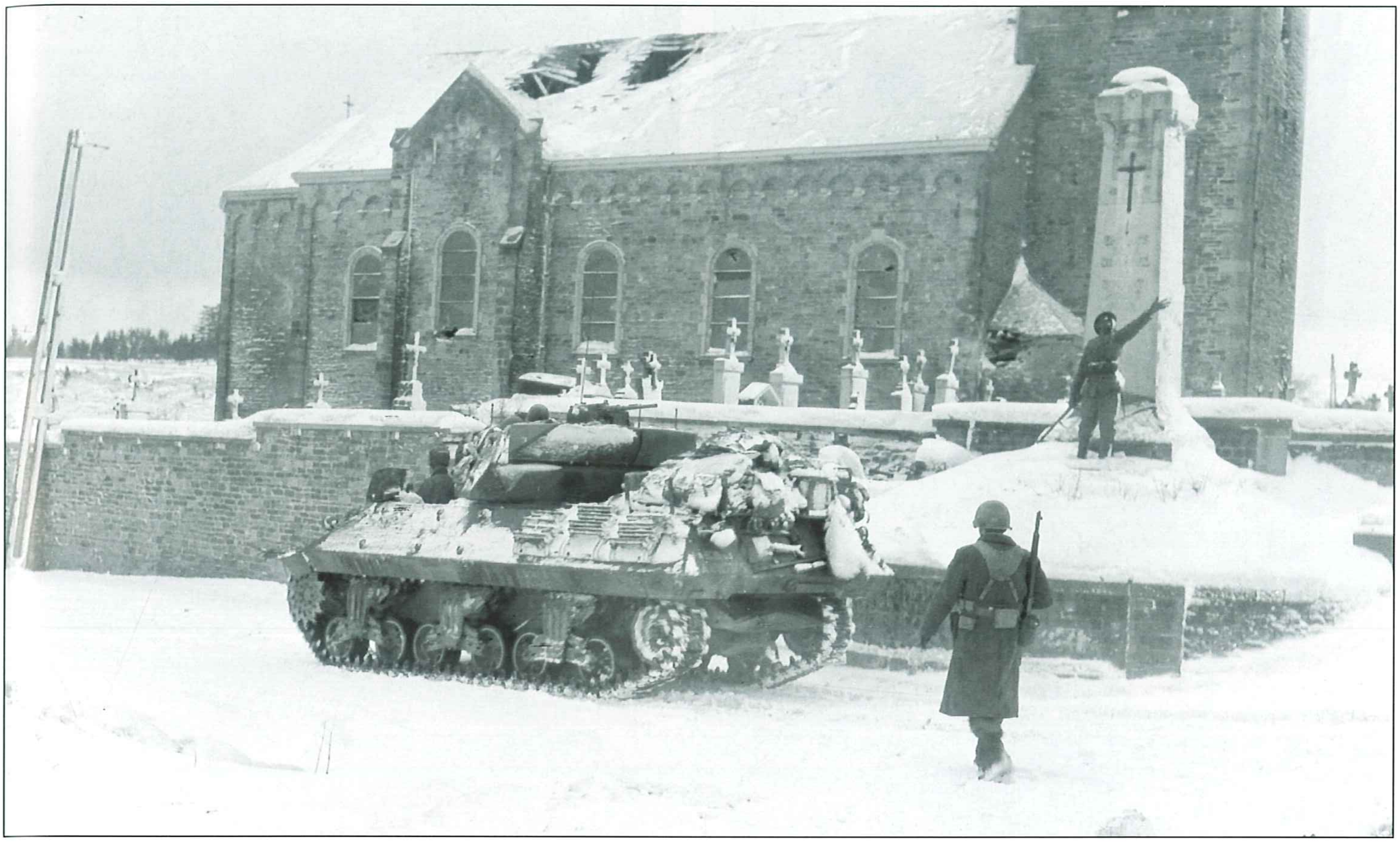


Another M36 90mm GMC with Patton's Third Army in Luxembourg on 3 January 1945.

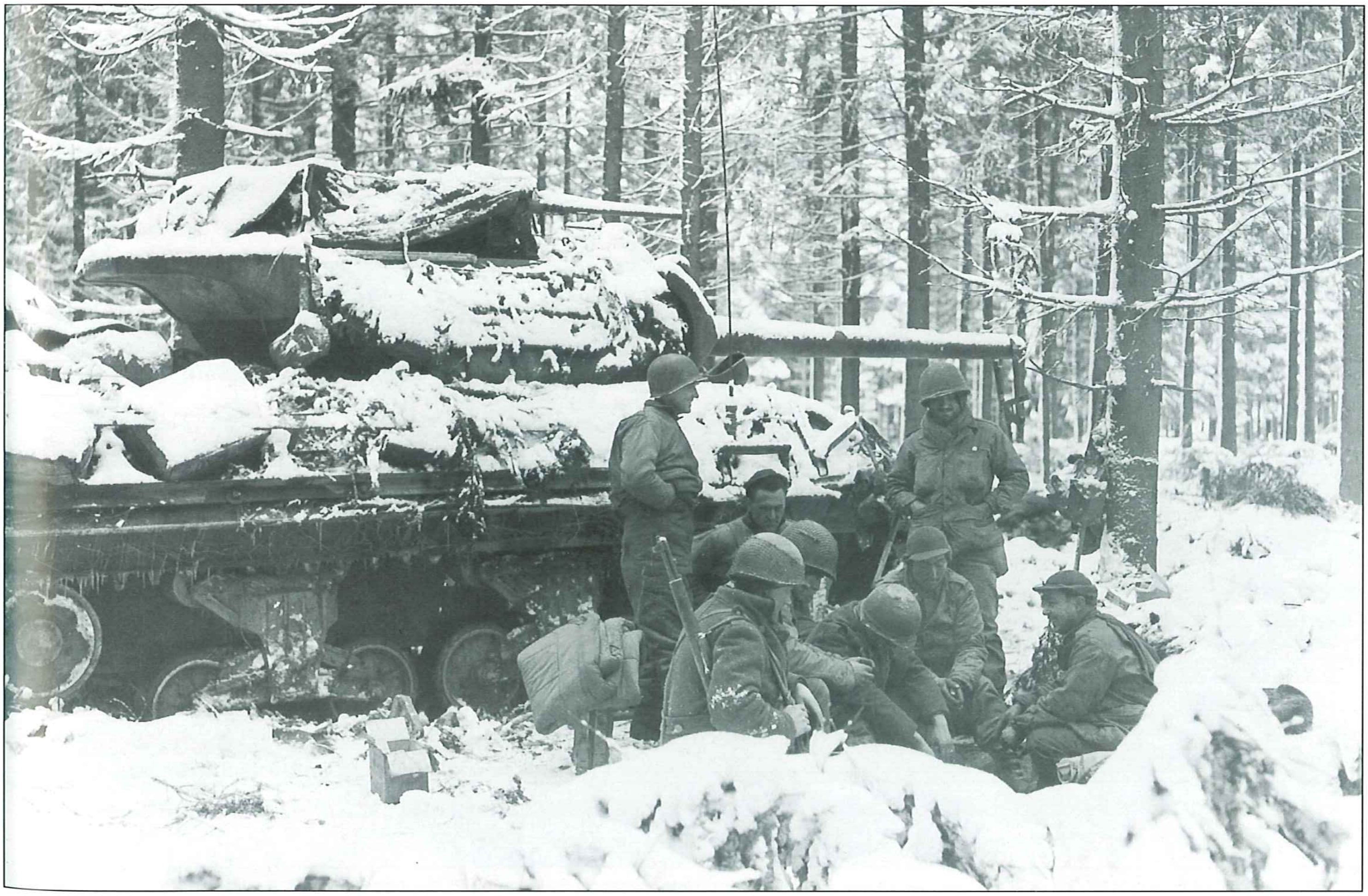
A M10 3in. GMC of the 703rd Tank Destroyer Battalion, 3rd Armored Division is stationed along a road in Belgium on 6 January 1945. One of the crew members is trying out a pair of skies taken from a German prisoner.



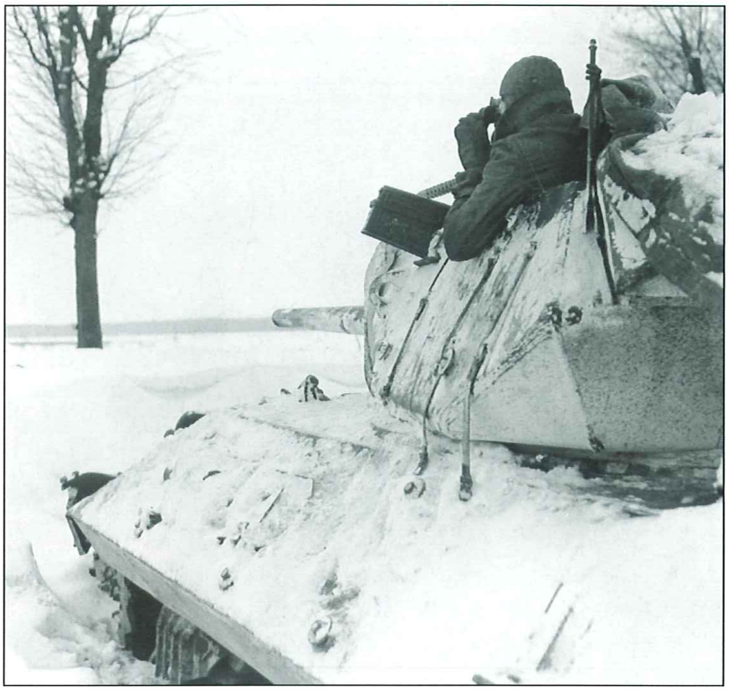
A M36 90mm tank destroyer of the 703rd Tank Destroyer Battalion, 3rd Armored Division passes a knocked out PzKpfw IV of the 115.Panzer Abt., 15.Panzer Div. south of Langlir, Belgium on 13 January 1945 in the concluding phase of the Battle of the Bulge.



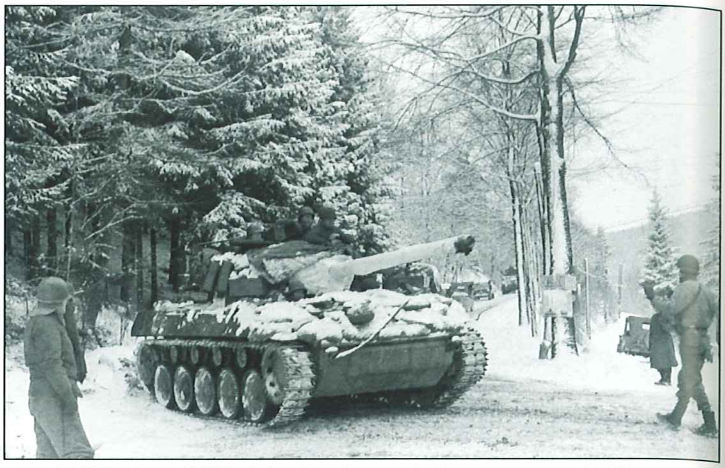
A snow covered M10 3in. GMC of the 629th Tank Destroyer Battalion passes by a monument to veterans of World War I in the town of Bovigny, Belgium while supporting operations by the 329th Regiment, 83rd Infantry Division on 20 January 1945.



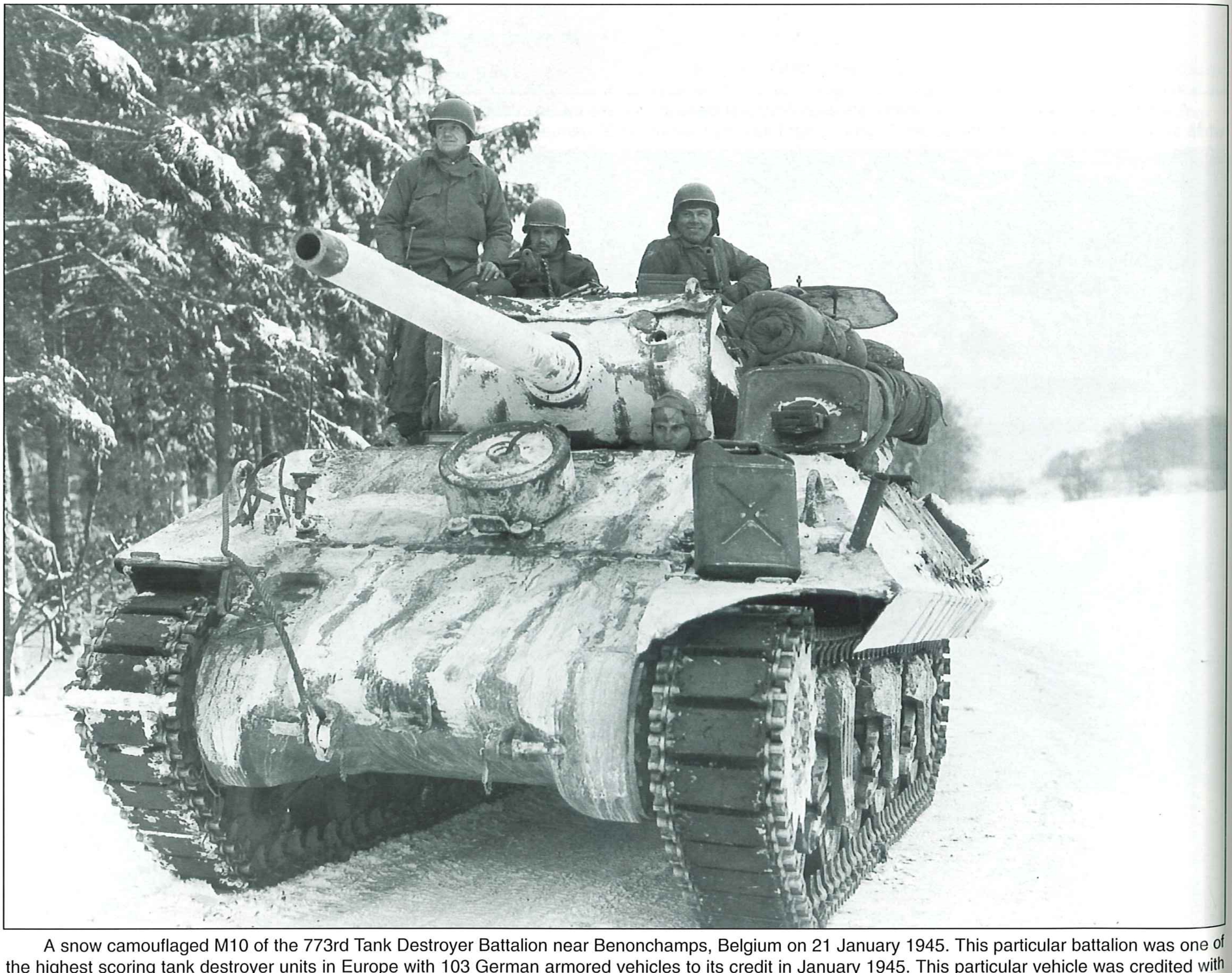
A view of another M10 3in. GMC of the 629th Tank Destroyer Battalion later on 20 January 1945 while the crew warms themselves near a fire with troops of the 331st Infantry Regt. near Courtil, Belgium.



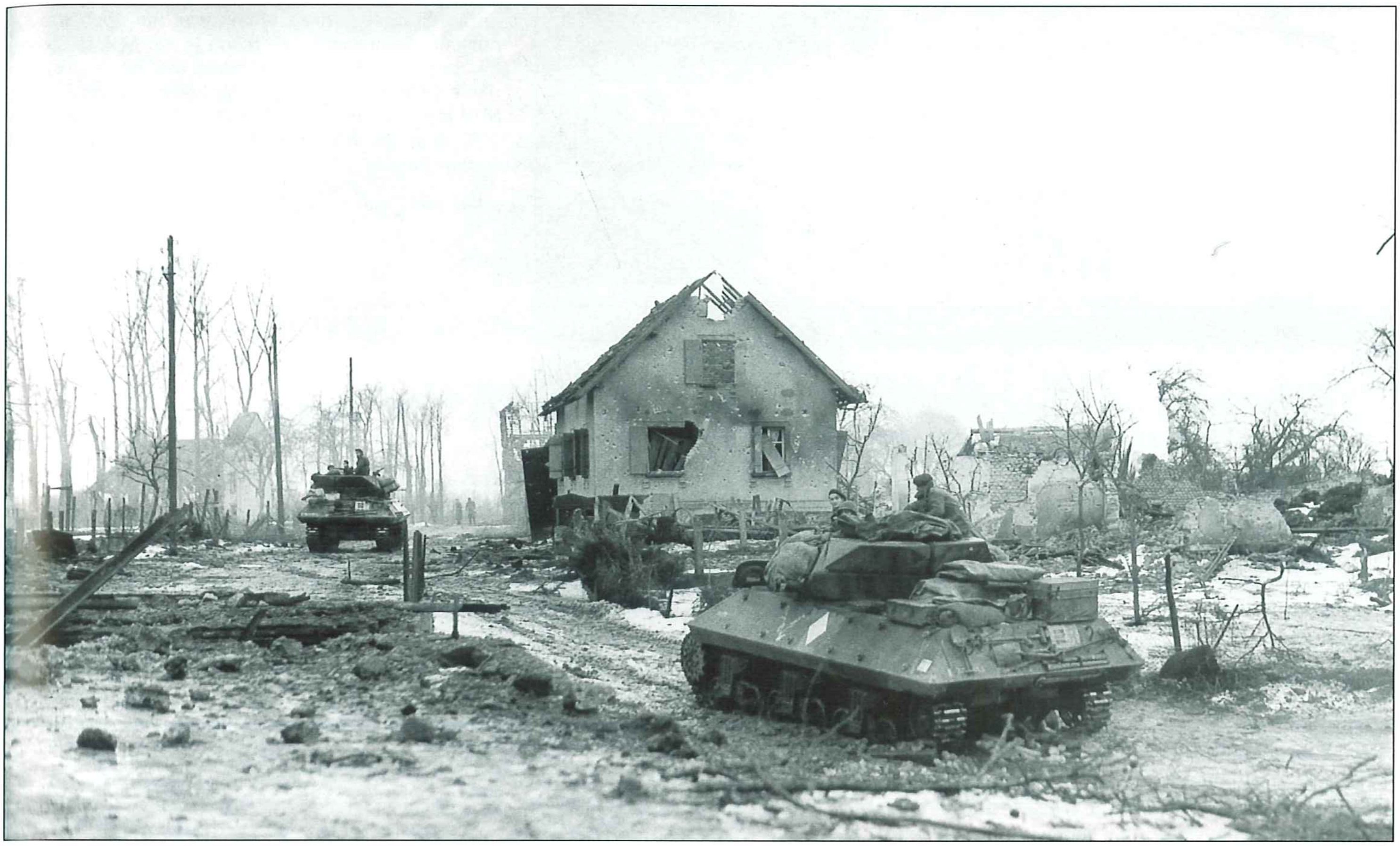
A M10 3in. GMC of the 636th Tank Destroyer Battalion conducts an overwatch of the fields outside Bischwiller on 28 January 1945 while supporting the 36th Infantry Division.



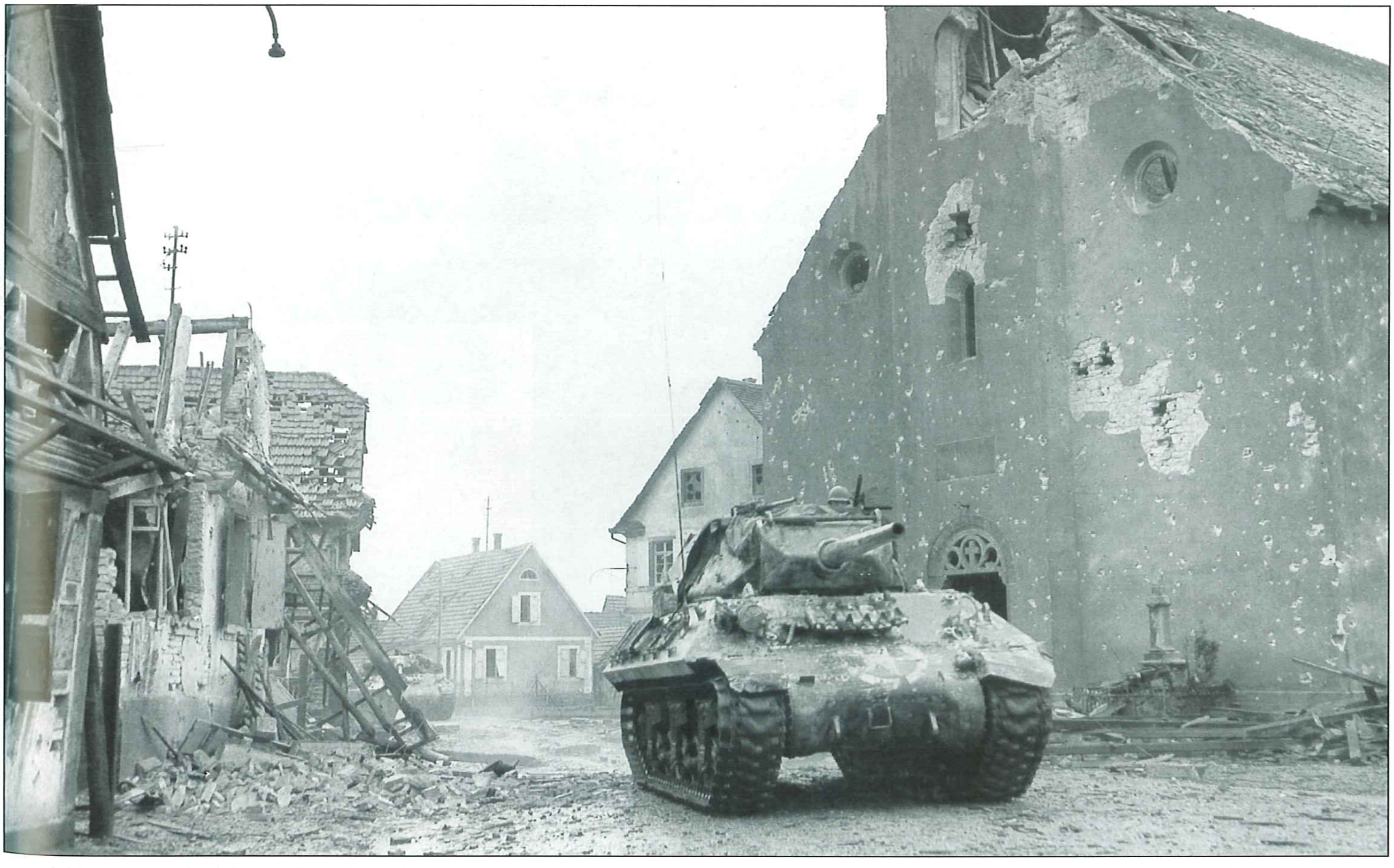
A M18 76mm GMC of the 2nd Armored Division comes skidding around a curve near Fisenne, Belgium on 21 January 1945. The icy roads in Belgium were a particular problem to rubber-tracked vehicles; the steel tracks usually used on the M18 provided better traction.



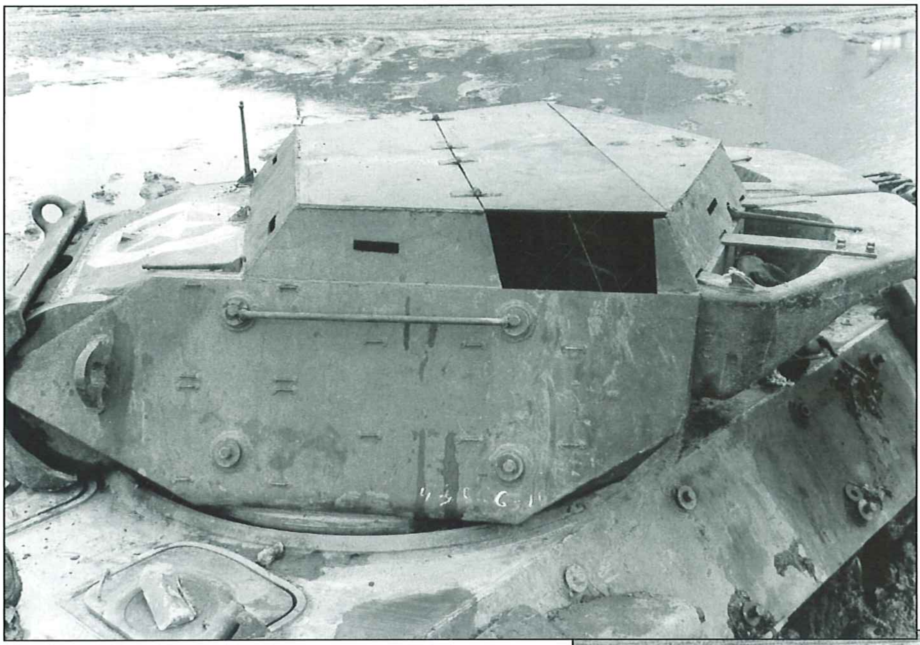
A snow camouflaged M10 of the 773rd Tank Destroyer Battalion near Benonchamps, Belgium on 21 January 1945. This particular battalion was one of the highest scoring tank destroyer units in Europe with 103 German armored vehicles to its credit in January 1945. This particular vehicle was credited with five German tanks during a German counter-attack near Oberwampach, Luxembourg during the Battle of the Bulge.



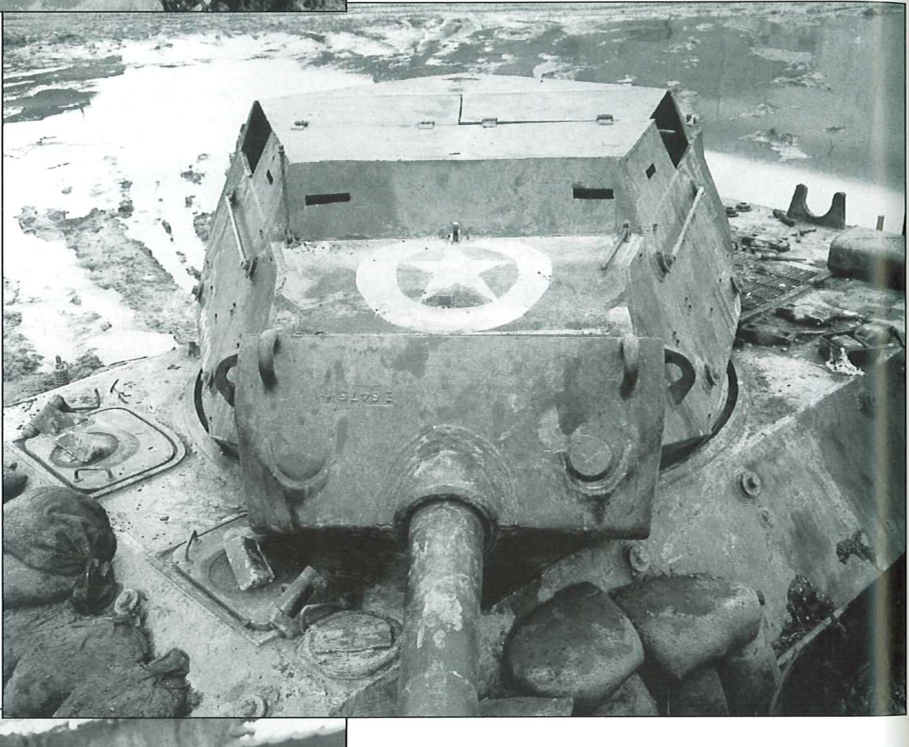
A pair of M10s of the *11e Regiment de Chasseurs d'Afrique*, French 5th Armored Division pass through a shell-shattered town along the French-German border in January 1945. A vehicle from this unit is illustrated in the color plates.



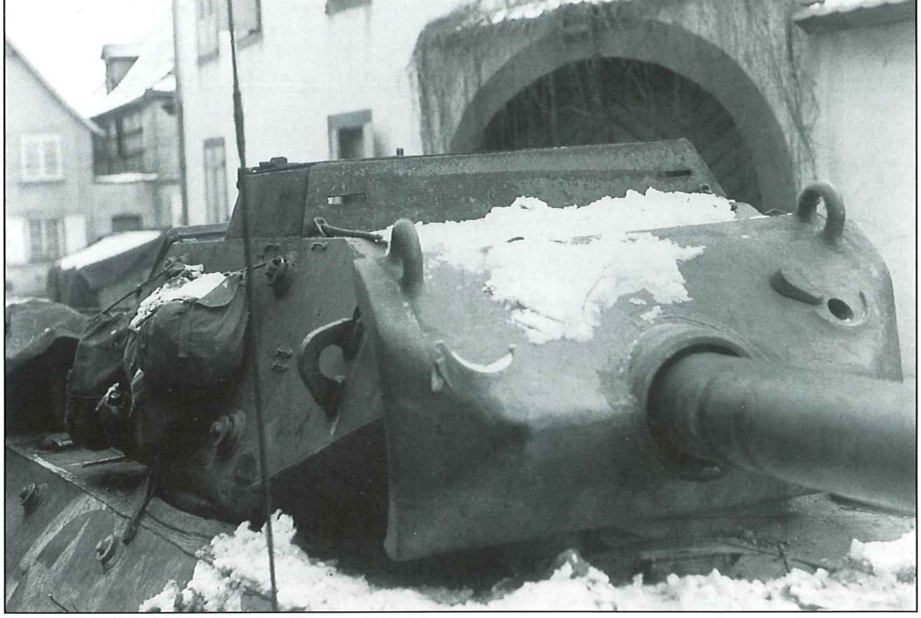
A M10 3in. GMC of the 636th Tank Destroyer Battalion supporting the 143rd Infantry Regiment, 36th Division moves through the rubble strewn streets of Rohrwiller, France on the approaches to the German border on 4 February 1945.



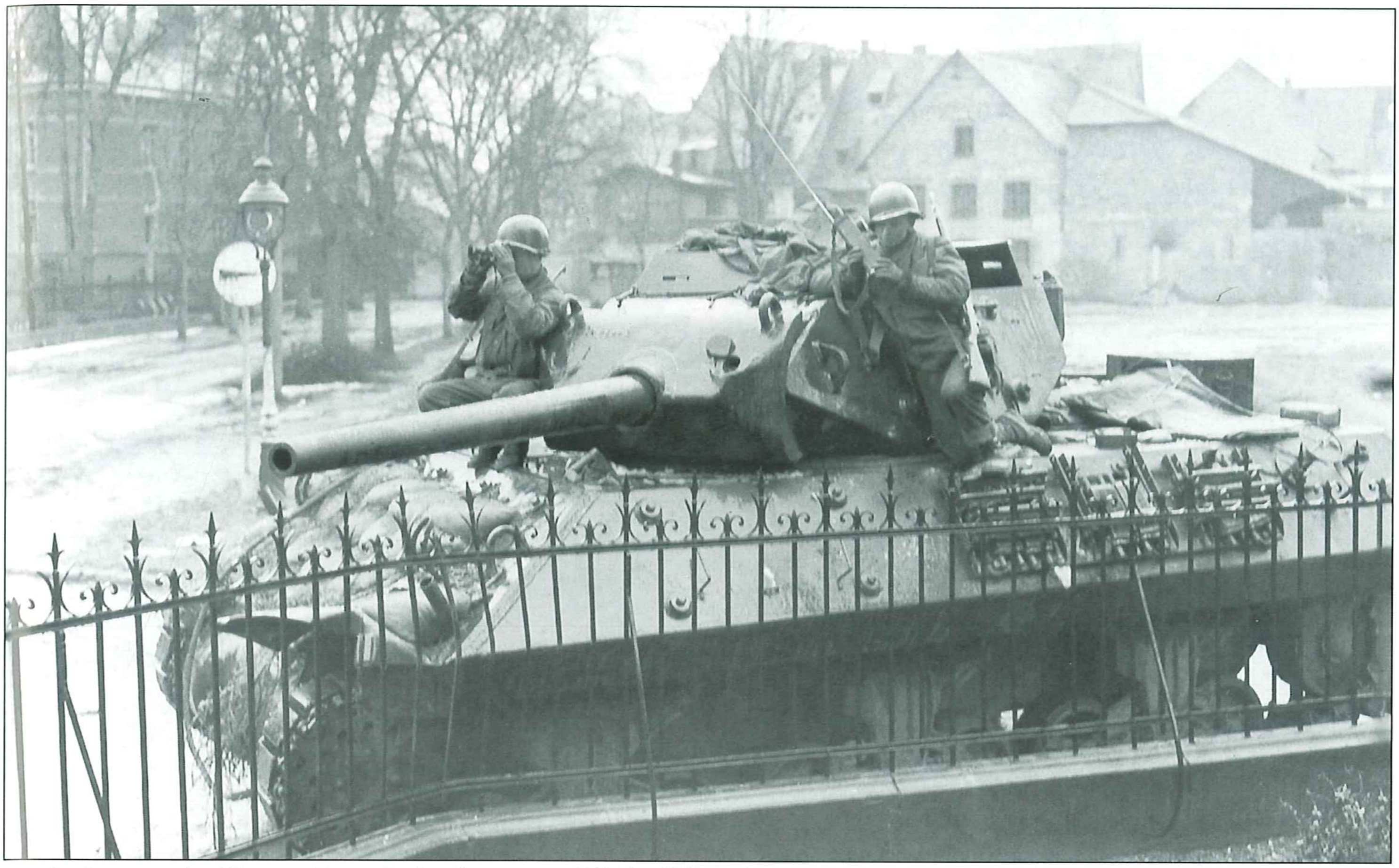
The most serious shortcoming of the tank destroyers when used to provide infantry support in towns or close-grained terrain was the open roof. A number of attempts were made in the field to correct this problem. This is an armored roof devised by the 536th Ordnance HM Co. of the Seventh Army fitted to M10 tank destroyers in February 1945. This particular M10 is of the late production type with the duck-bill counterweights.



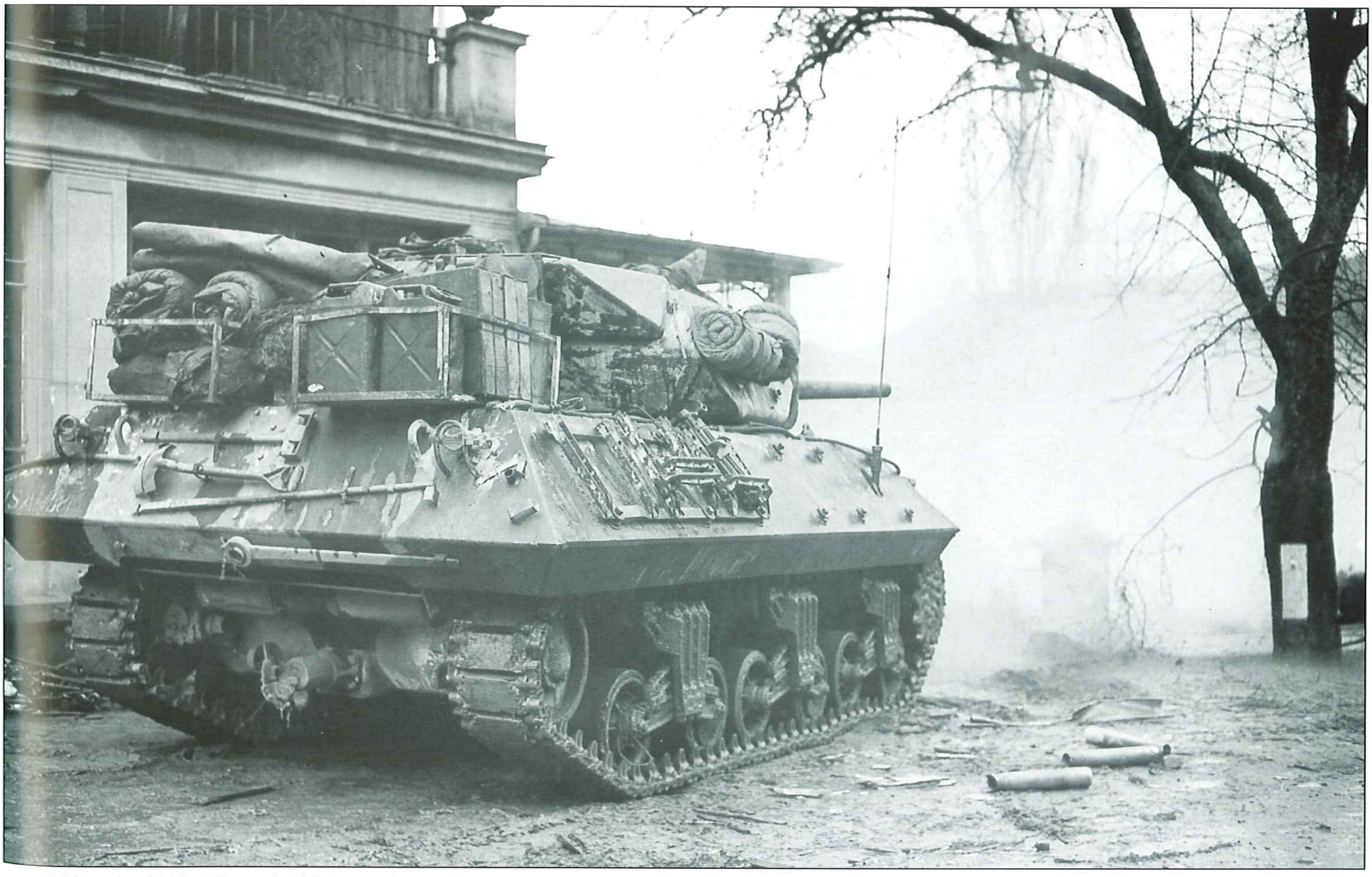
A detailed front view of the improvised roof armor as fitted on a M10 3in. GMC of the Seventh Army in February 1945. Note also the extensive use of sand-bag armor on this vehicle.



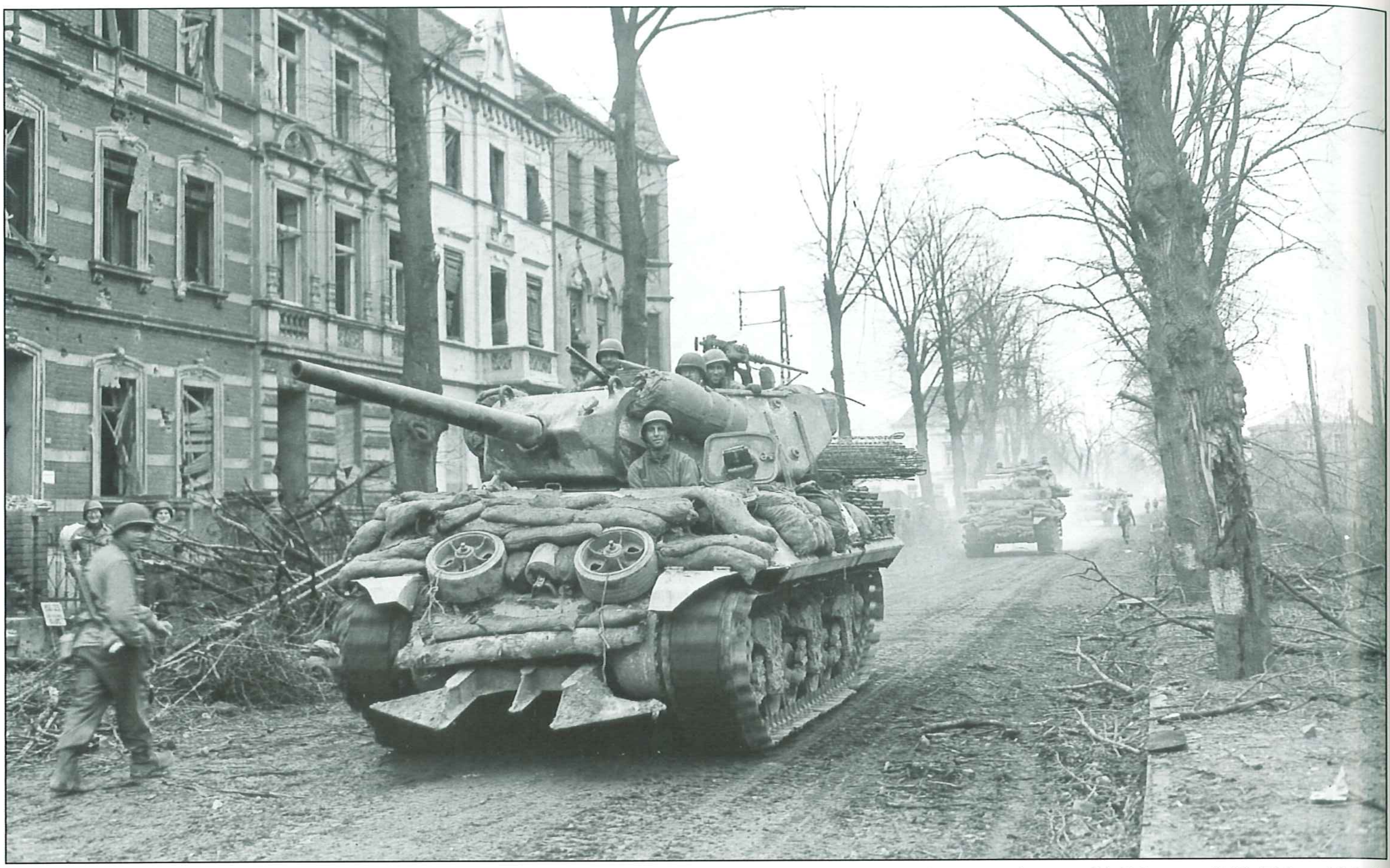
An example of the roof armor in use, in this case on a M10 3in. GMC of the 813th Tank Destroyer Battalion in Soulta, France on 14 January 1945.



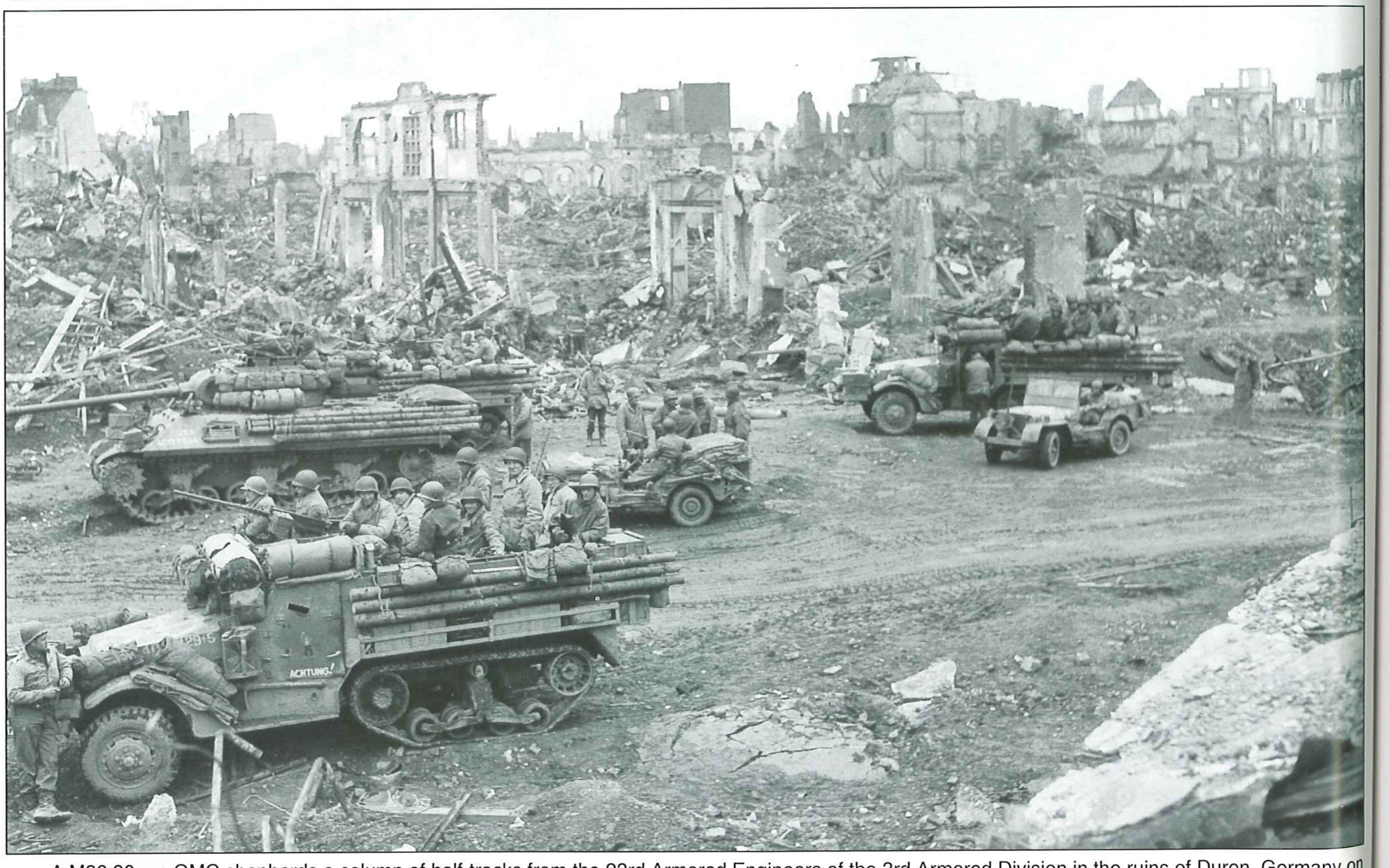
Another example of the use of improvised roof armor on a M10 3in. GMC, in this case on a M10 3in. GMC of the 12th Armored Division in Haguenau, France while covering river crossings over the Moder river on 5 February 1945 while supporting the 313th Infantry Regiment.



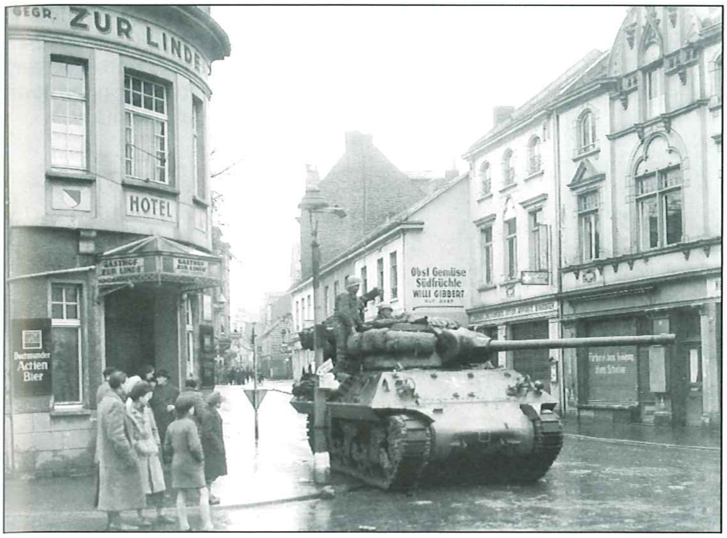
A M10 3in. GMC of Patton's Third Army fires on German positions during the fighting along the Sauer river near Echtermach, Luxembourg on 7 February 1945.



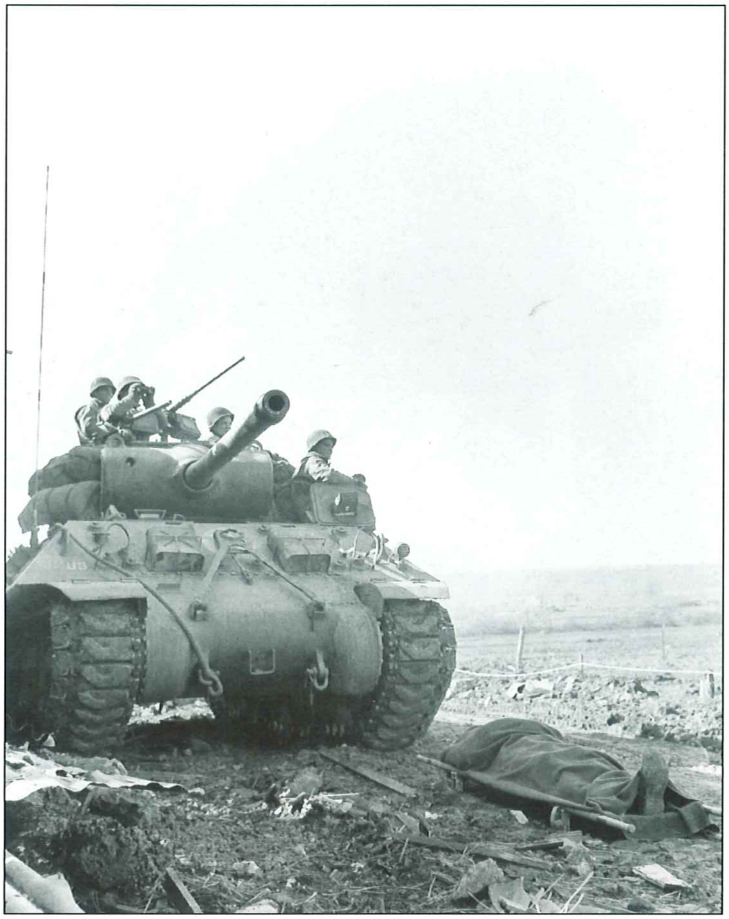
A well protected M10 3in. GMC passes through Durne, France while supporting 8th Infantry Division operations on 24 February 1945. This vehicle is still fitted with the Culin hedgerow cutters and carries an extensive amount of sand bags and logs to offer further protection against German *panzerfaust* anti-tank rockets.



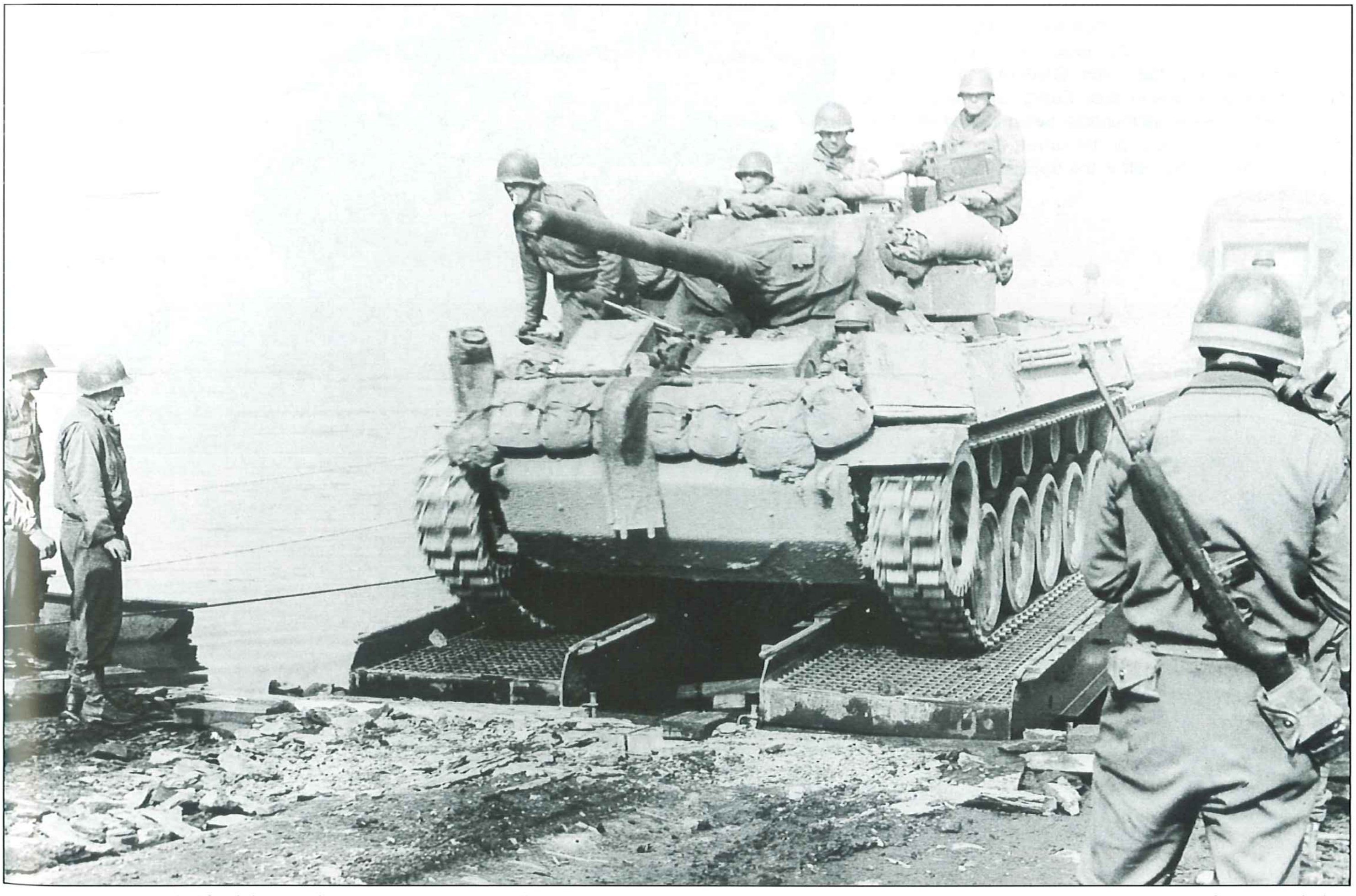
A M36 90mm GMC shepherds a column of half-tracks from the 23rd Armored Engineers of the 3rd Armored Division in the ruins of Duren, Germany on 26 February 1945. The logs on the hull side were probably being carried for the befit of an engineer construction project rather than as stand-off armor.



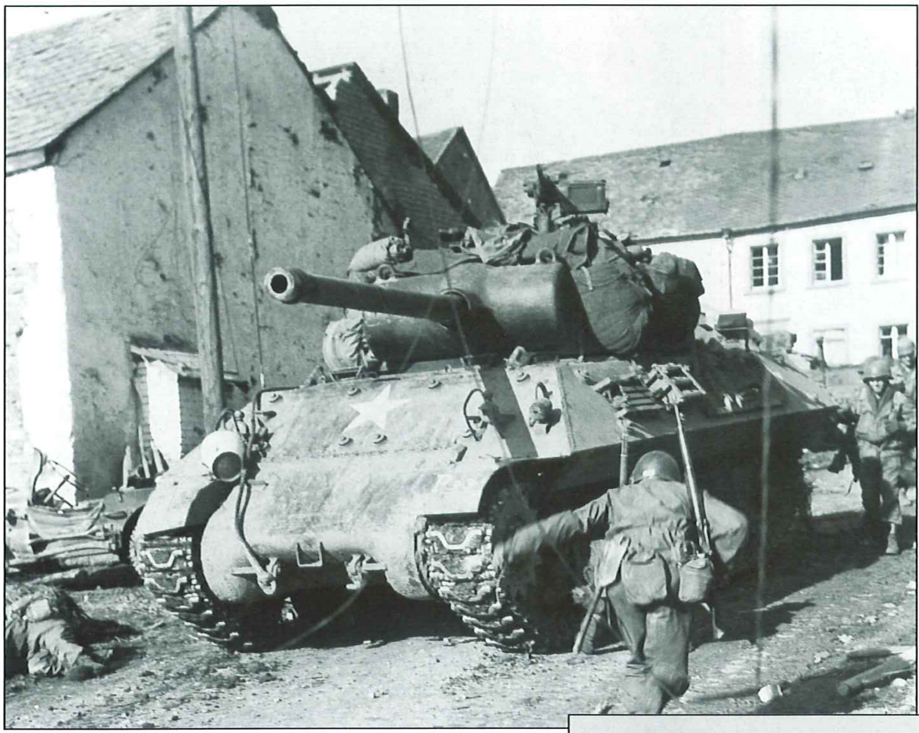
A M36 90mm GMC of the 899th Tank Destroyer Battalion, First Army stands as a road-block on the rain-soaked streets of Bad Godesberg, Germany on 7 March 1945. The city was spared artillery bombardment due to the large number of hospitals located there.



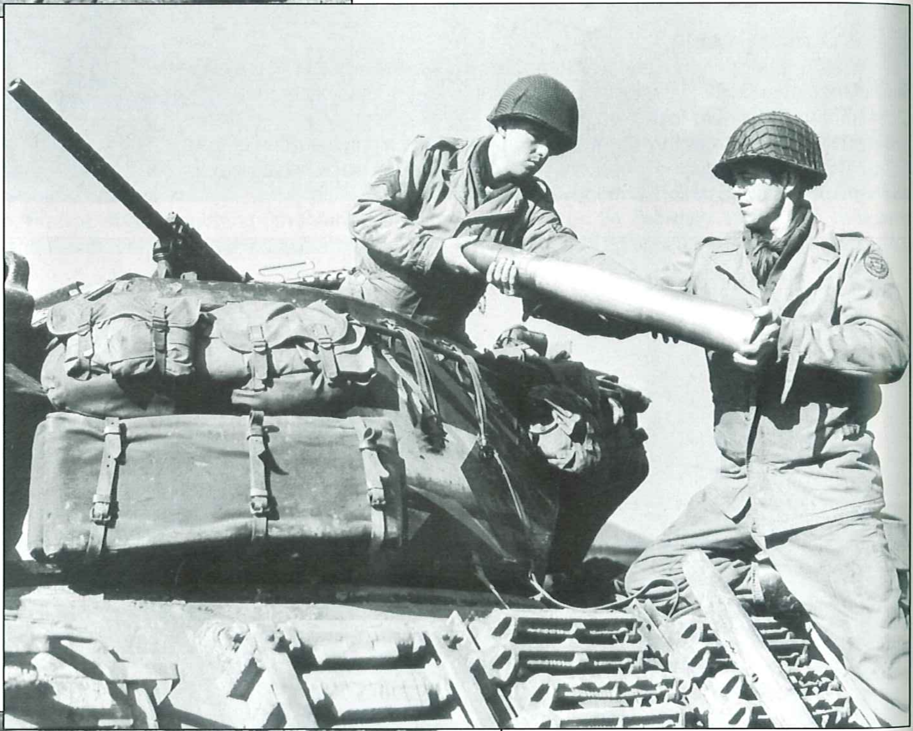
A M36 90mm GMC stands watch over a casualty while awaiting an ambulance near Guidekirch, France on 15 March 1945. The soldier from the 71st Infantry Regiment lost a leg to a mine. The M36 is located in a mine cleared lane as is evident by the white engineer's tape along the edge of the road. The M36 had duck-bill end connectors fitted to its track, which gave the vehicle better floatation in muddy conditions.



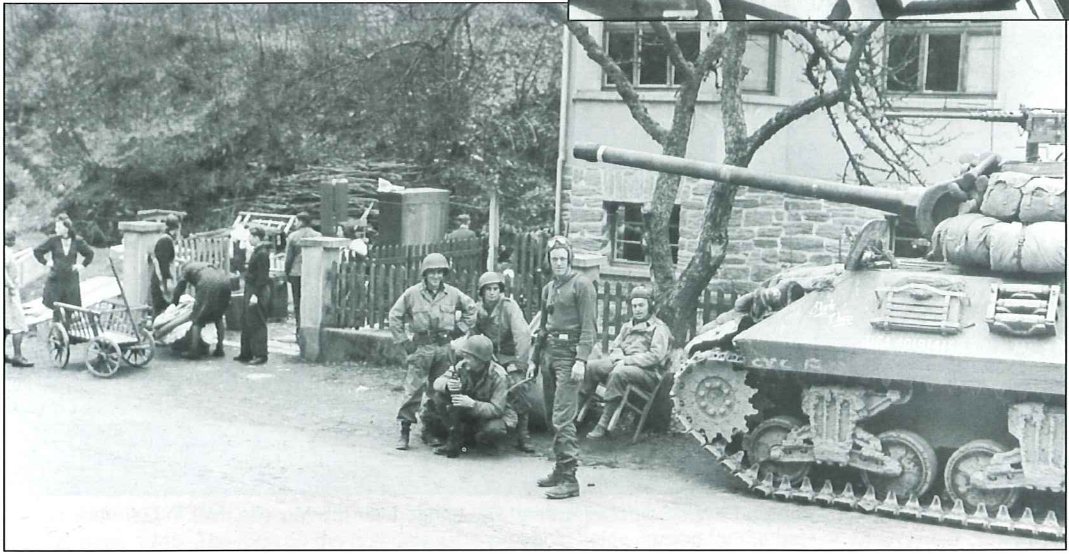
A M18 76mm GMC of the 704th Tank Destroyer Battalion, 4th Armored Division crosses a treadway bridge over the Moselle river in Germany during the Saar-Palatinate campaign on 15 March 1945.



GIs of the 301st Infantry, 94th Division, Third Army head for cover past a M36 90mm GMC as German artillery shells whistle overhead in Schillingen, Germany on 15 March 1945. The M36 was parked in the town while awaiting orders to move on Kell, Germany.

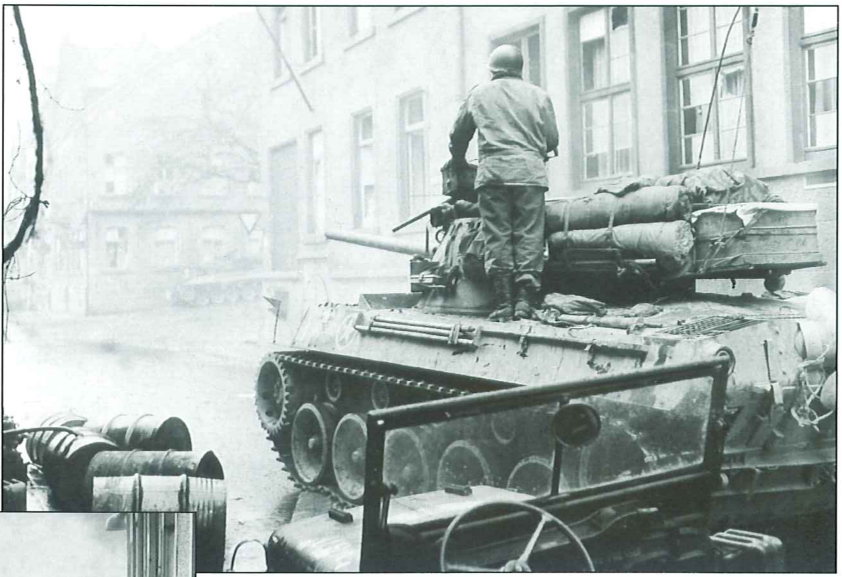


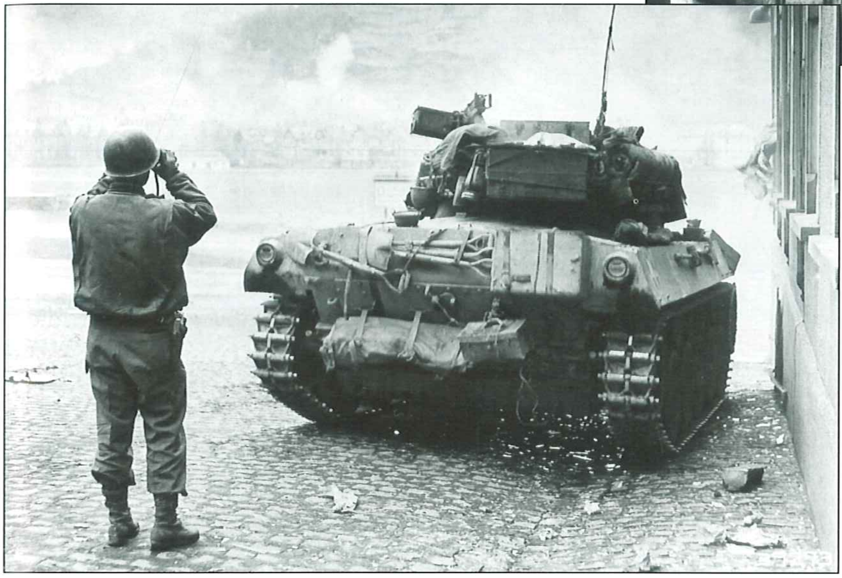
The crew of a M36 90mm GMC of Patton's Third Army reload ammunition near Sertig, Germany on 16 March 1945. This is ammunition being loaded into the ready racks at the rear of the turret; the ammunition stowed in the hull was left in the transport tubes.



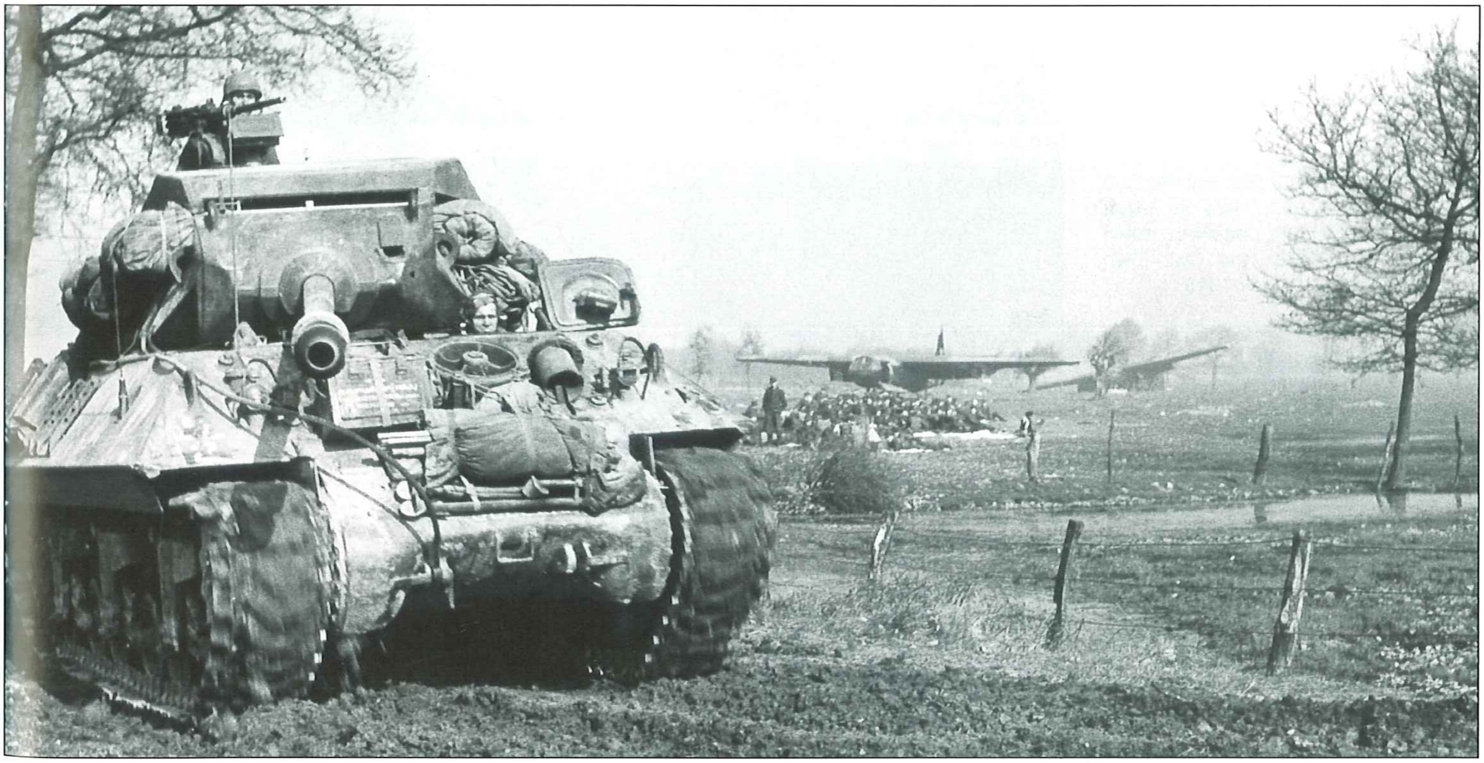
A M36 90mm GMC named "Pork Chop" of the 2nd Cavalry, Third Army, takes a breather during operations in Germany on 18 March 1945.

M18 76mm GMCs of the 602nd Tank Destroyer Battalion move into St. Goar, Germany in support of the 89th Infantry Division on 26 March 1945.

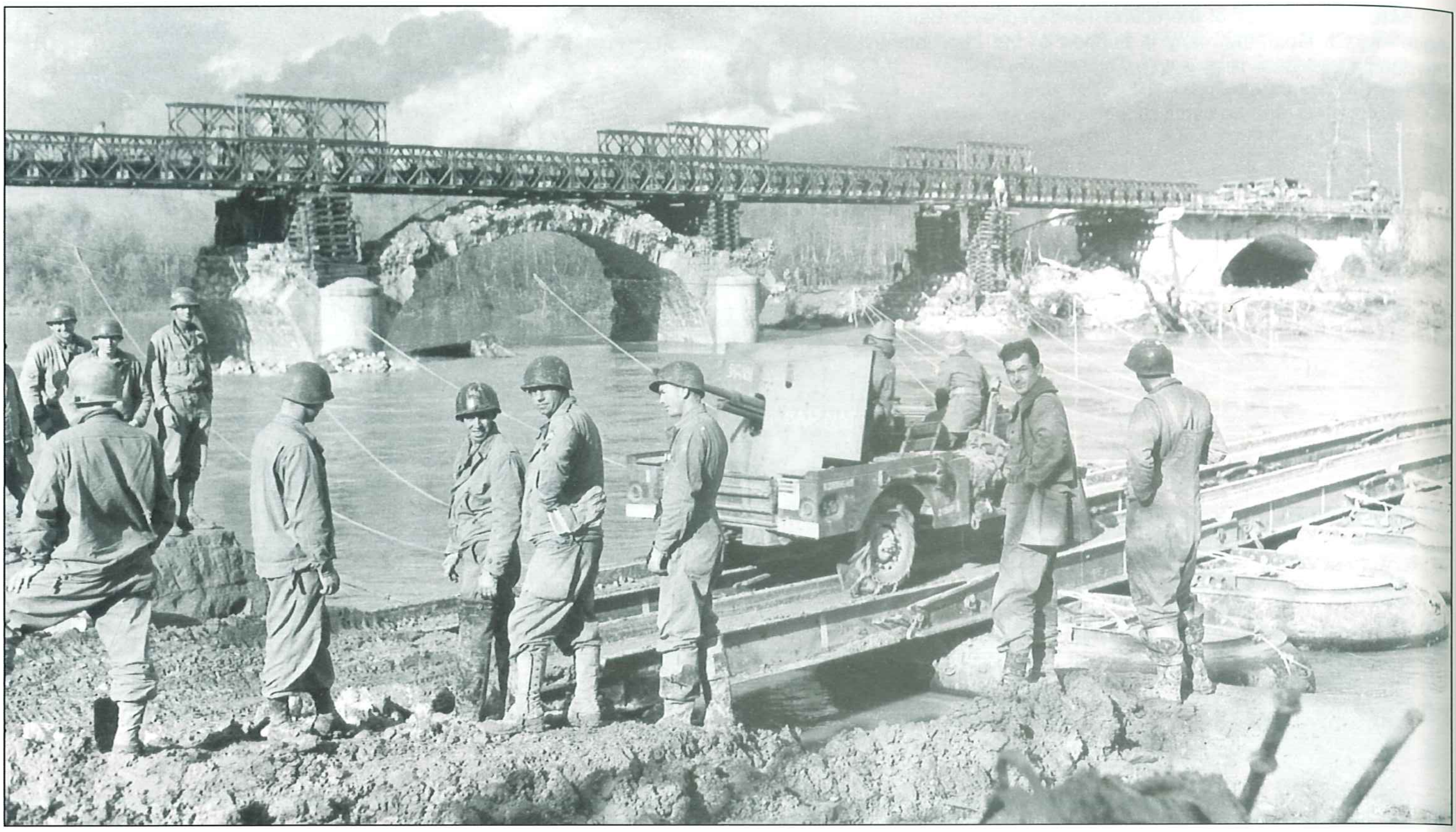




A M18 76mm GMC of the 602nd Tank Destroyer Battalion in St. Goar, Germany engages German positions on the opposite shore of the Rhine river on 26 March 1945. A bridgehead over the river had already been secured earlier in the month when the Remagen bridge was seized.

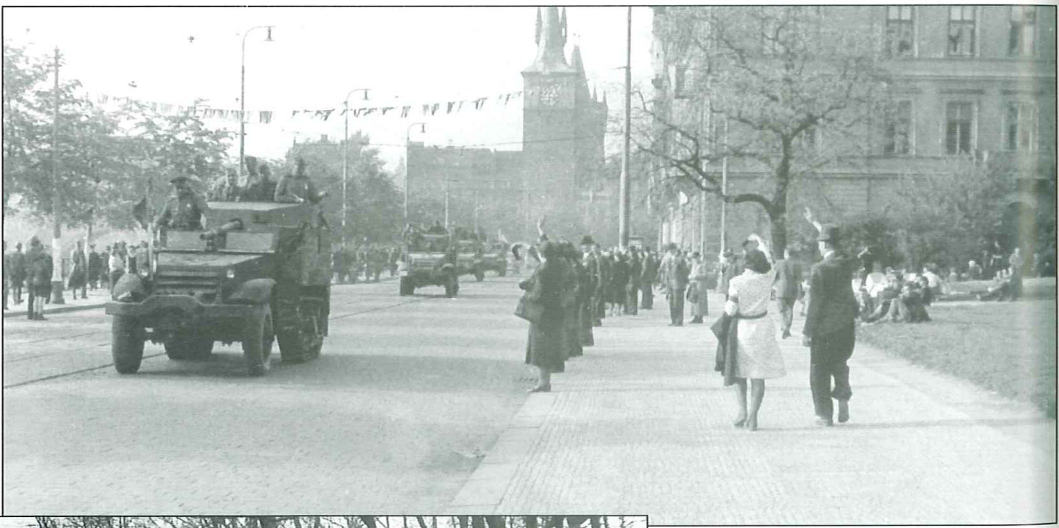


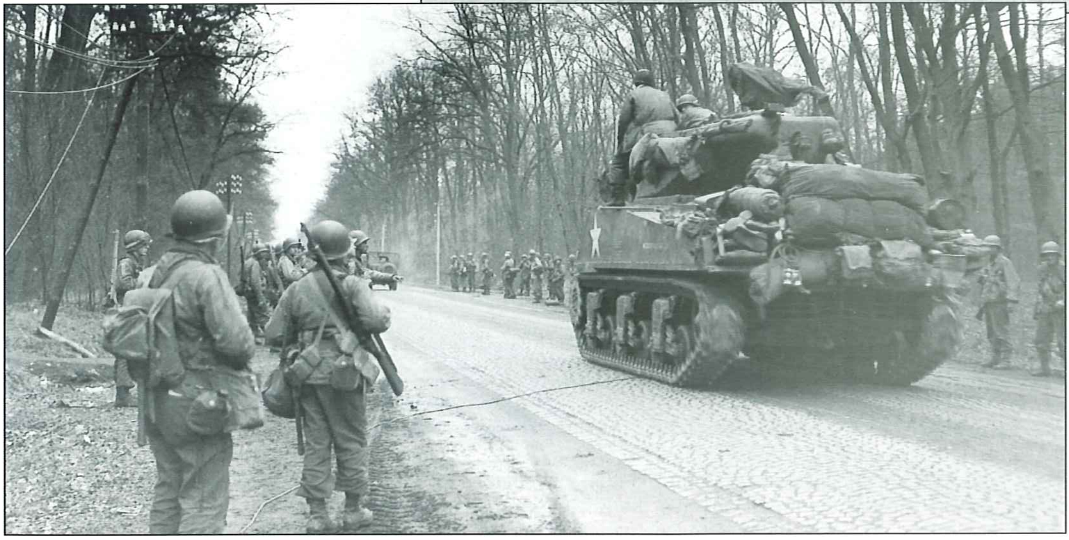
Prior to the capture of the bridge at Remagen, the Allies planned a major airborne drop to seize positions on the east bank of the Rhine, dubbed "Operation Varsity". This was carried out even after the Remagen bridge was captured. Here on 25 March 1945, a British 17 pdr. M10 passes by a field where a pair of Horsa assault gliders landed earlier in the operation. As in the American case, the British Army was not keen on the lack of overhead protection for the M10 crew, and so fitted "blast roofs" as seen here, based on a November 1944 Department of Tank Design (DTD) instruction. (IWM)



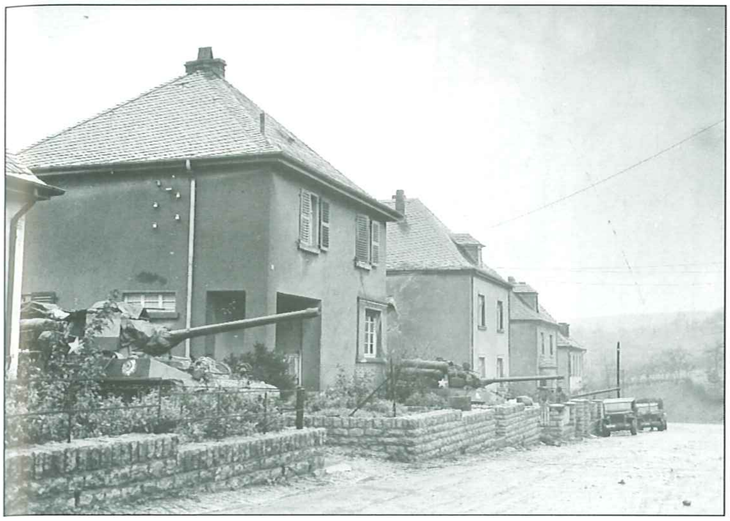
The French Army was the last to use the obsolete M6 37mm GMC in combat, mainly with units that had been raised in North Africa in 1943 that later took part in the invasion of southern France. Among the units still using them during the Alsace campaign was the *1e Regiment de Spahis Algeriens de Reconnaissance* (1 RSAR) which served with the 1st Armored Division.

Another rare tank destroyer was the T48 57mm GMC, used by the Red Army as the SU-57. Here a Soviet column of SU-57s passes down Smetanovo street in the Old Town section of Prague in May 1945.

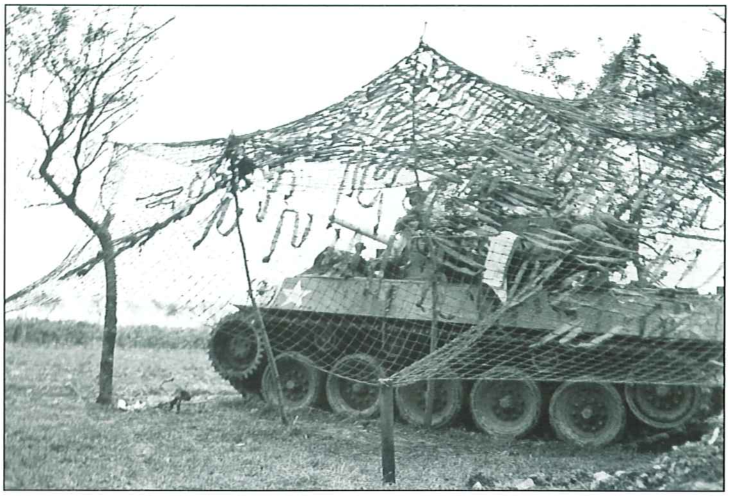




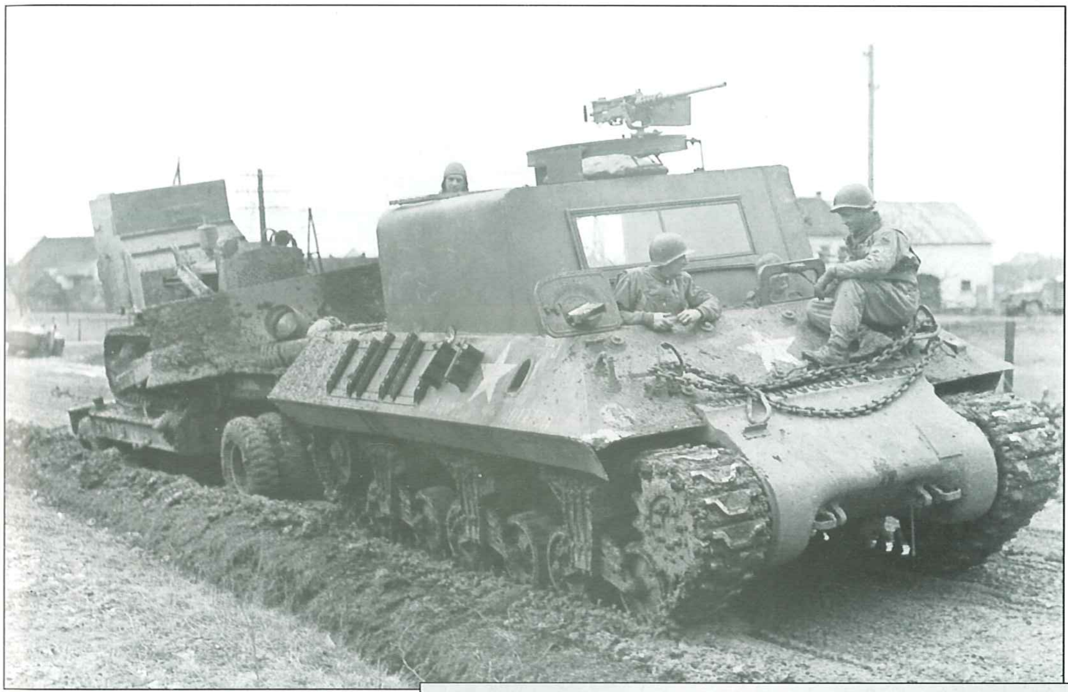
Due to the great demand for M36 tank destroyers, a small number of M36B1s were created by mating a M36 turret to a M4A3 tank hull. This example of the 11th Armored Division of Patton's Third Army passes by GIs of the 26th Division near Langenselbd, Germany on 30 March 1945.



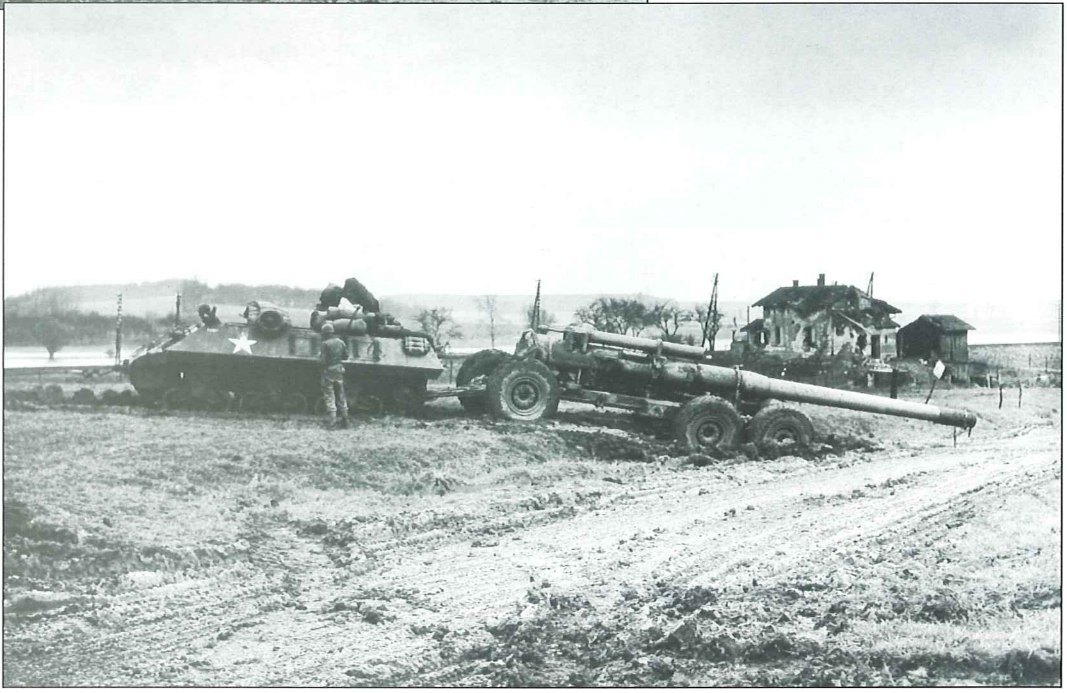
A platoon of M18 76mm GMCs of the 705th Tank Destroyer Battalion use a row of houses in Perl, Germany for cover in March 1945. The cartoon on the hull side appears to be an Indian chief in a war bonnet.



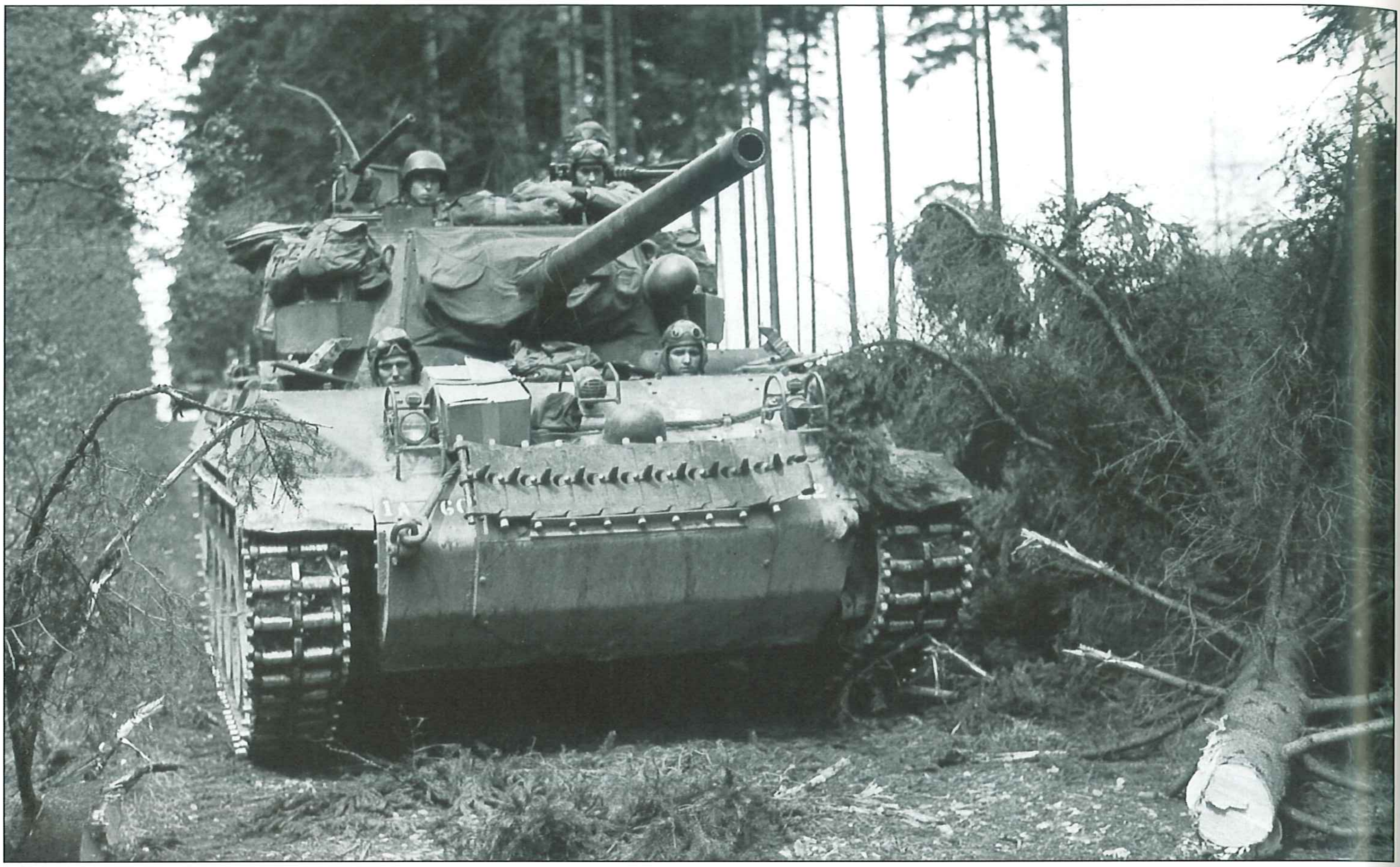
A M18 76mm GMC is used in the artillery fire support role in March 1945. The light colored material at the center of the vehicle is a fluorescent orange air identification panel, commonly attached to the roofs of US Army vehicles to prevent attacks by Allied fighter-bombers.



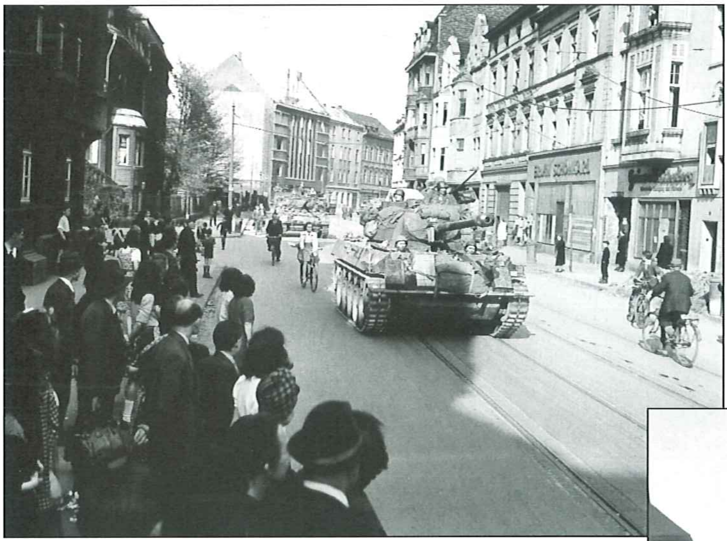
Some of the M10A1 GMCs were converted to M35 Full-Tracked Prime-Movers. These were intended primarily to tow heavy artillery, but in some cases were used in more general roles such as this M35 of the 4th Armored Division towing a semi-trailer with an armored bulldozer near Kyll, Germany on 7 March 1945. The large superstructure over the turret opening is a local design, complete with a recycled jeep windshield.



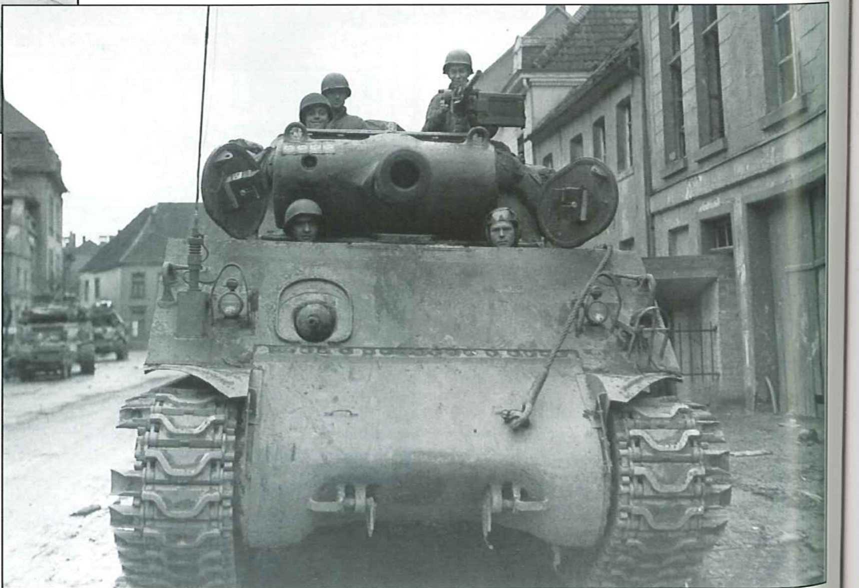
A good view of the M35 Full-Tracked Prime Mover in its intended role, towing the barrel assembly for the 8 inch gun. Notice that the vehicle is basically a turretless M10A1 GMC.



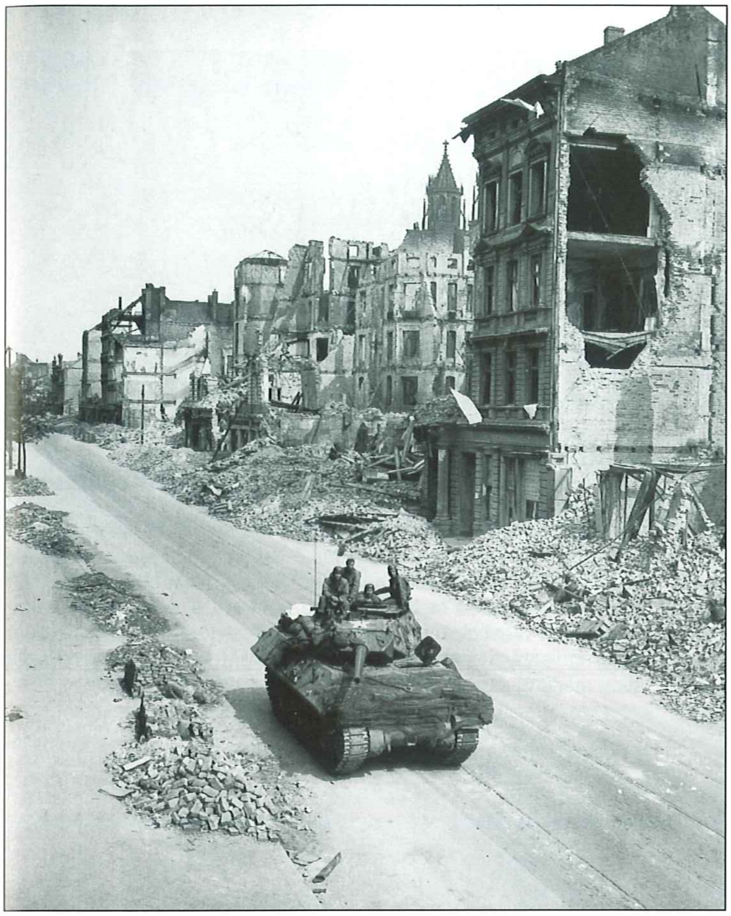
A M18 76mm GMC of the 704th Tank Destroyer Battalion during operations in support of the 89th Division, First Army in the Lossnitz forest in May 1945. The crew has added an addition .30 cal. Browning machine gun on the right side of the turret, and stowed an extra length of track on the bow.

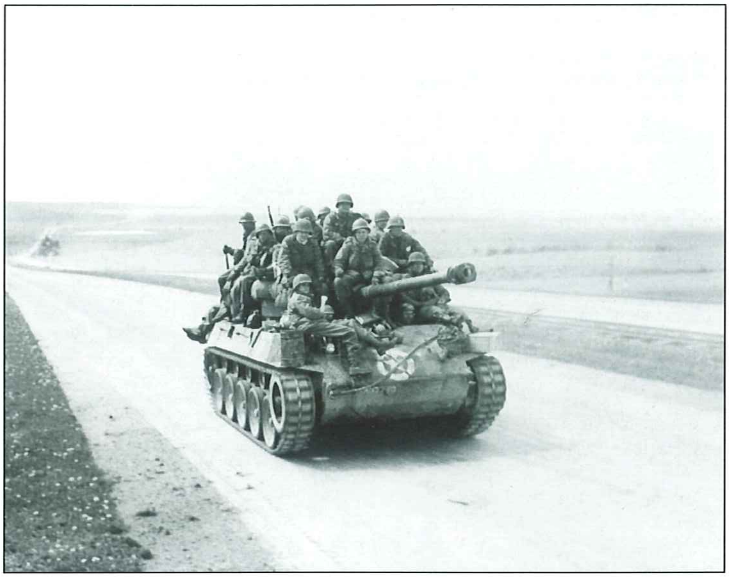


A M18 76mm GMC enters Dusseldorf, Germany in April 1945. This shows the less common configuration with the muzzle brake. The crew has rigged a shelf across the front of the vehicle for additional stowage.



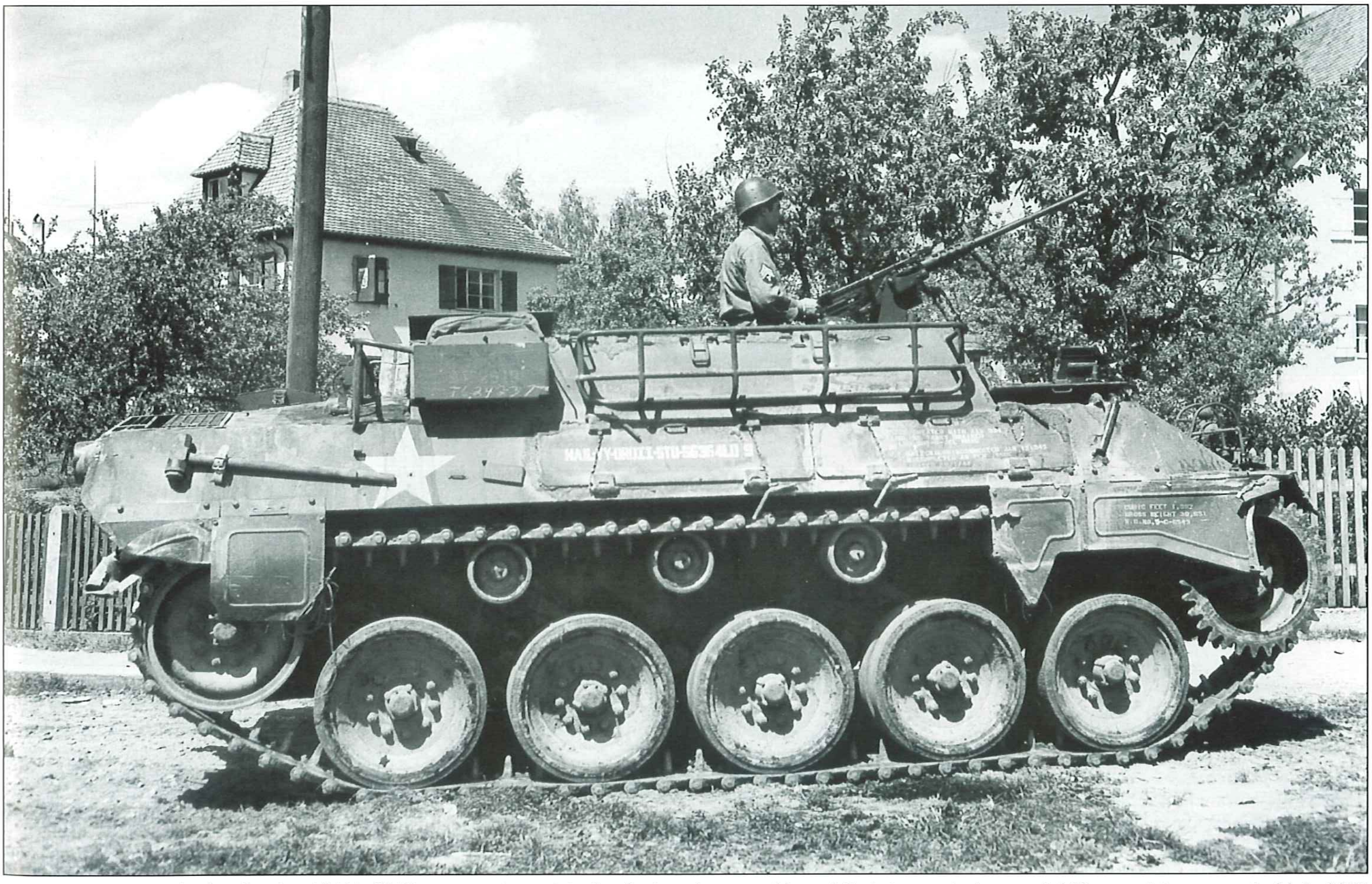
A view of one of the relatively rare M36B1 90mm GMC, in this case serving with the 654th Tank Destroyer Battalion in support of the 35th Division, Ninth Army. The four small Nazi flags on the mantlet are victory markings for the two PzKpfw IV and two Tiger tanks knocked out by this vehicle. This M36B1 has duck-bill end connectors fitted to its track for better floatation in muddy conditions.



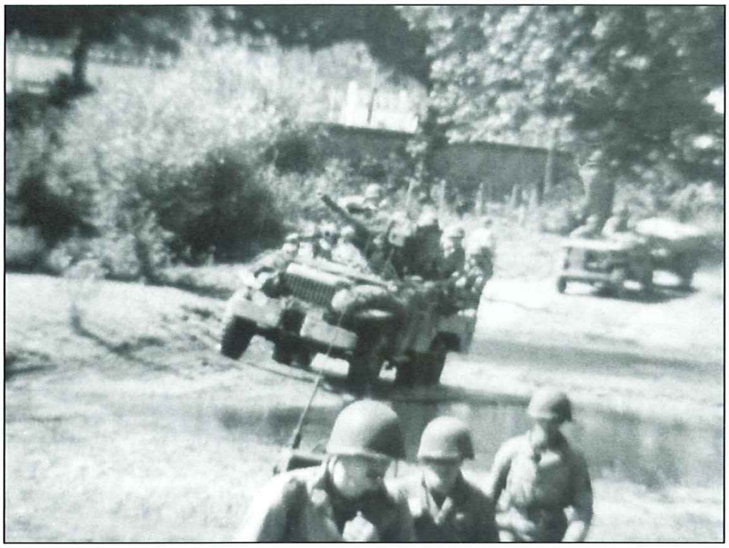


The autobahn provides smooth sailing for a M18 Hellcat carrying GIs of the 63rd Division near Scheppech, Germany on 27 April 1945. The M18 was the fastest US Army tracked AFV of the war, capable of road speeds of 45 mph. This vehicle is fitted with the M1A1C or M1A2 76mm gun with a muzzle brake.

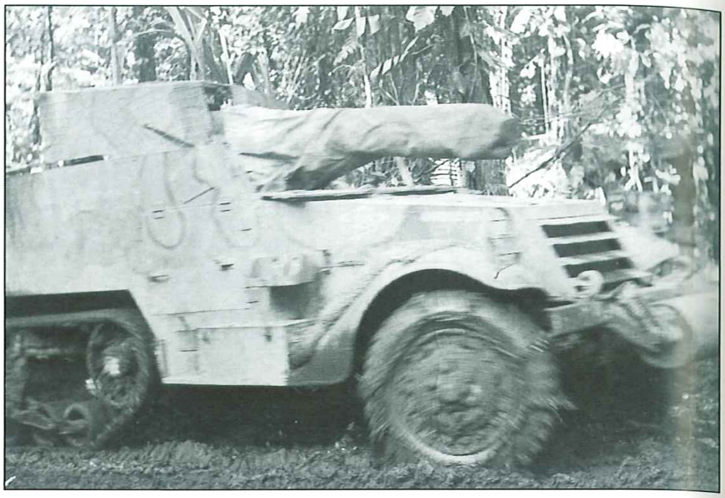
A M10 3in. GMC of the 823rd Tank Destroyer Battalion, Ninth Army passes through the ruins of Magdeburg, Germany on 18 April 1945. This vehicle has roof armor fitted as well as an extensive array of sandbag or concrete armor on the bow.



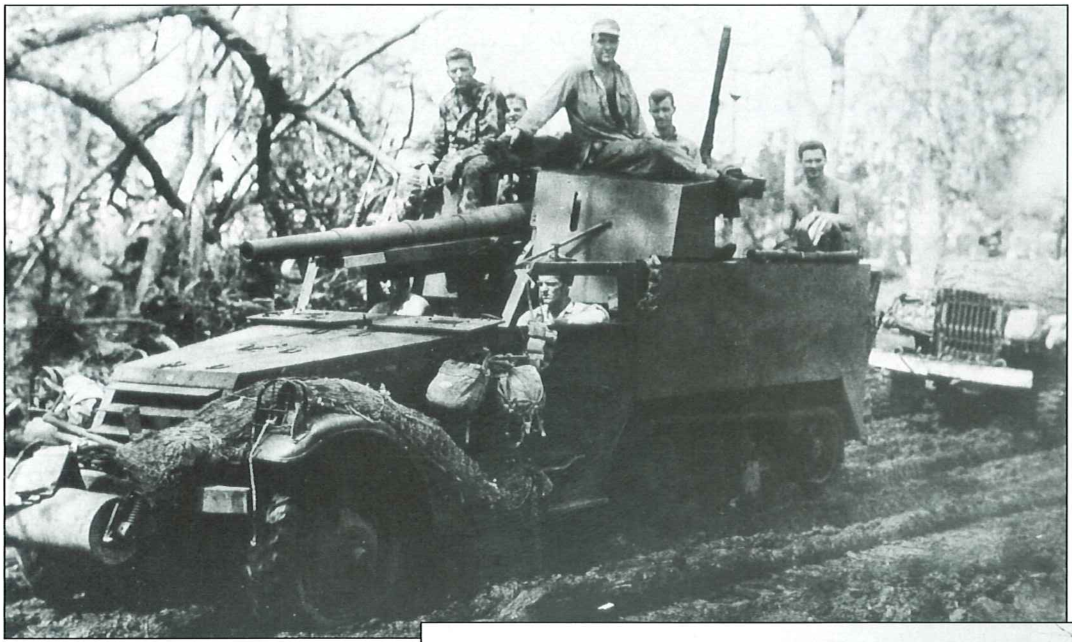
The initial production batch of M18 GMCs were returned to the factory for reworking of their transmission, and 640 were later converted into M39 armored utility vehicles as seen here. These were intended to perform various functions and a small number saw service in Europe in the concluding months of the war as seen here in Germany.



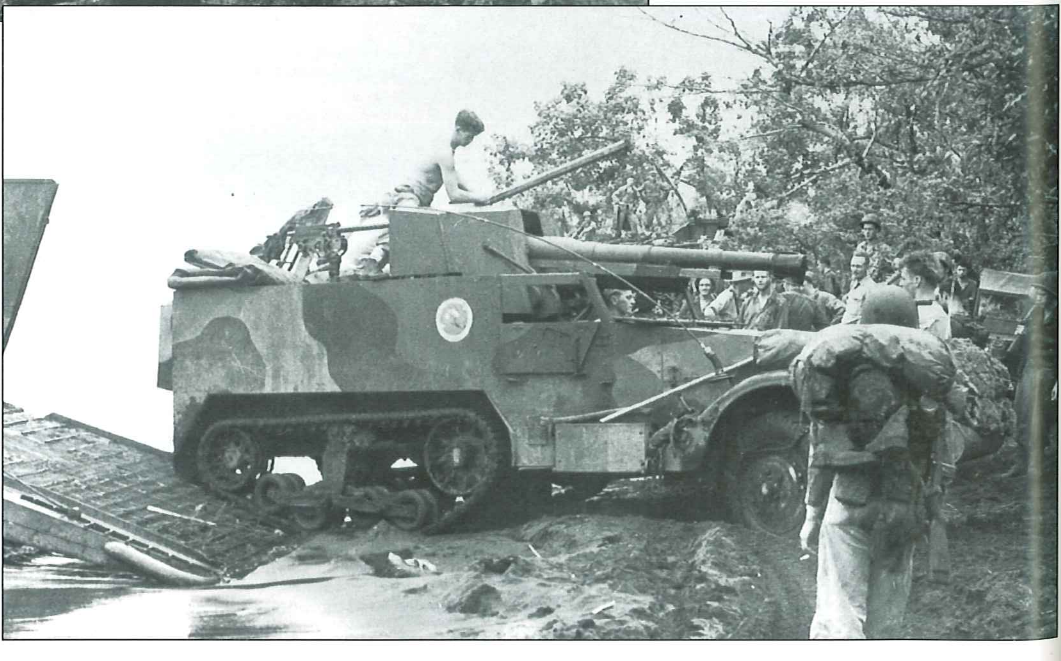
One of the rarest tank destroyers in the Pacific Theater was the M6 37mm GMC which was provided to the US Marine Corps in very small numbers. This photo is a rare view of one in operation with the Marine 3rd Division on Bougainville in early 1944.



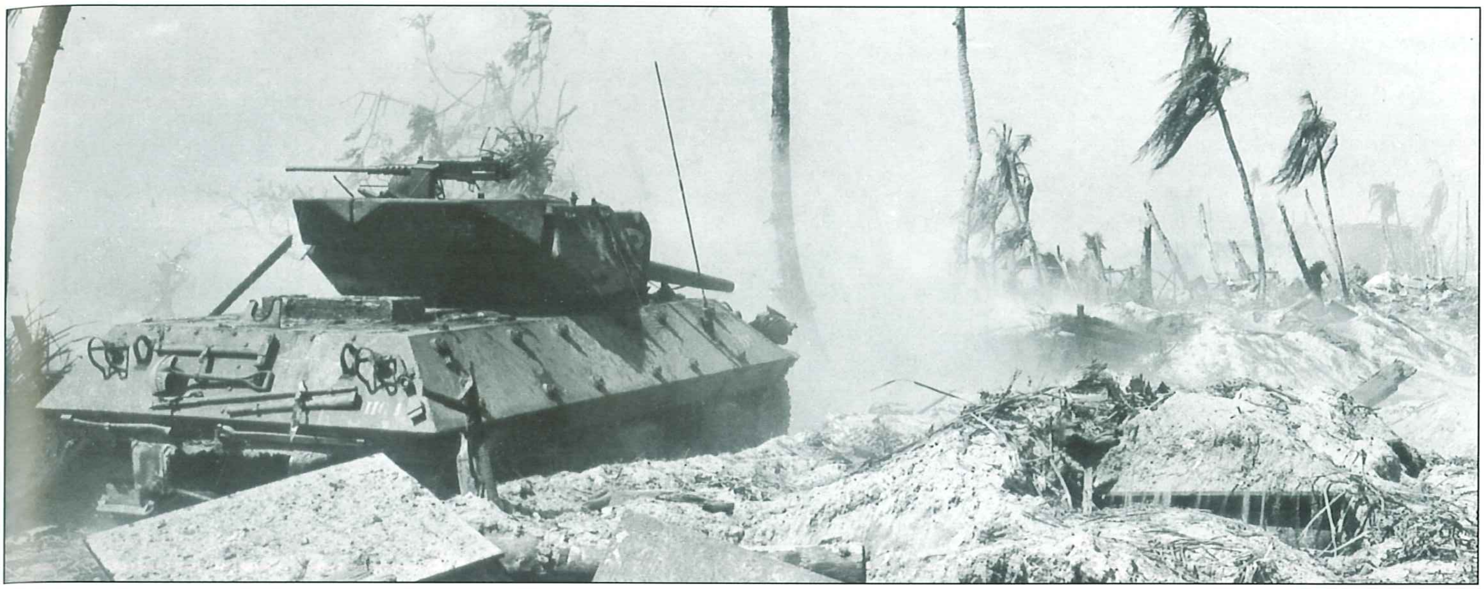
Marine divisions did not have tank destroyer units, but each division did have a special weapons company equipped with a dozen M3 75mm GMC, called SPM (Self-propelled Mounts) by the Marines. This SPM is serving with the Special Weapons Company of the 3rd Marine Division on Bouganville in early 1944 as is evident from the lozenge-shaped embarkation marking carried on the side of the engine cover.



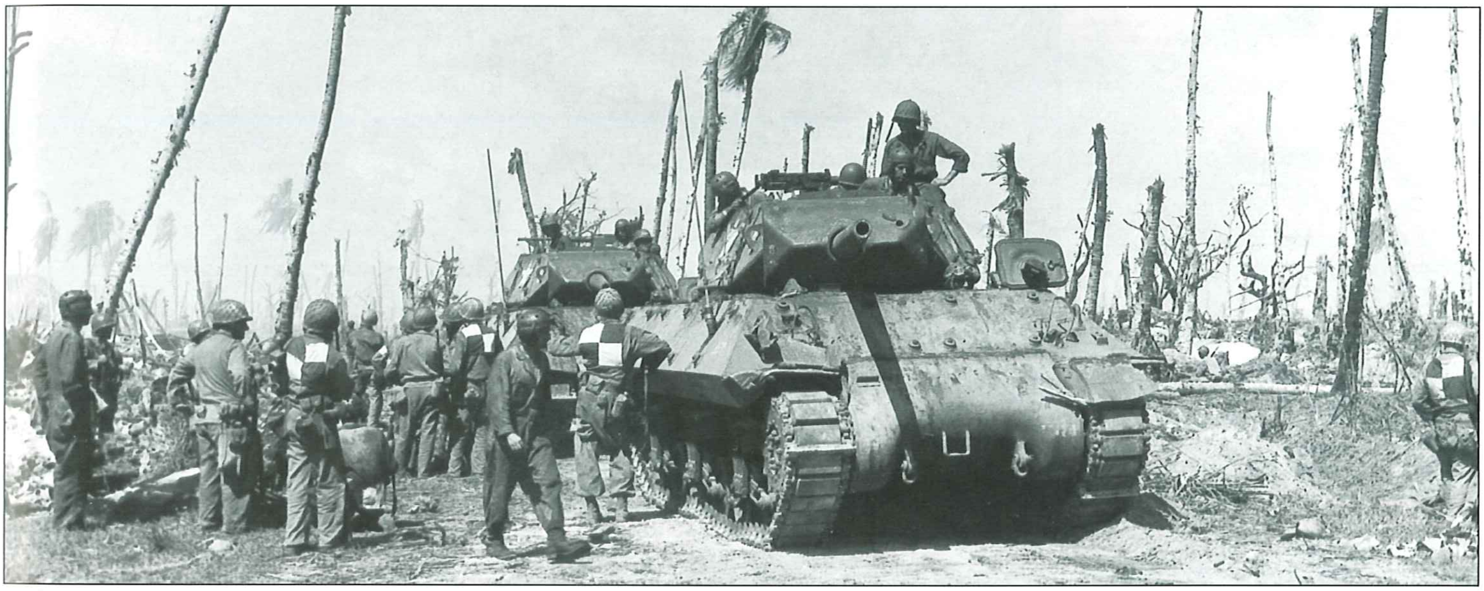
Another SPM in service with the Special Weapons Company of the 3rd Marine Division on Bouganville in early 1944. These vehicles were mainly used to provide direct fire support for Marine units when encountering Japanese bunkers or other fortified positions.



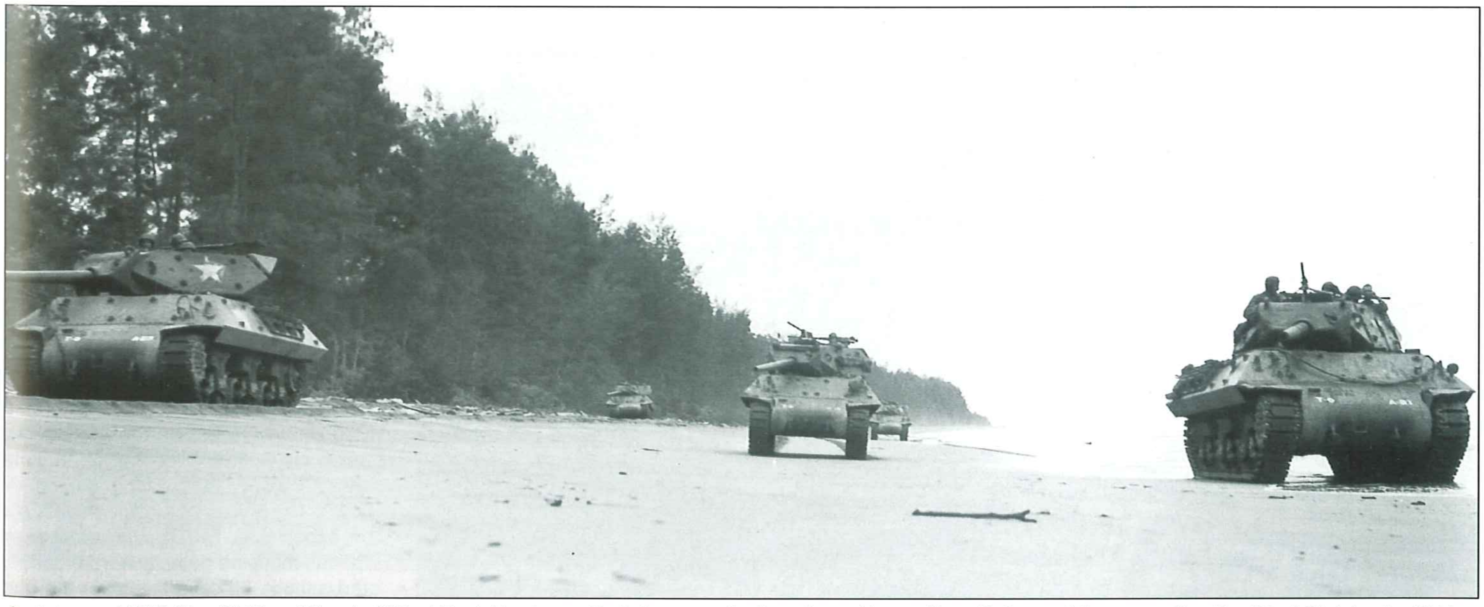
A SPM of the Special Weapons Company of the 1st Marine Division comes ashore at Cape Gloucester in December 1943. The SPMs saw considerable use in the fighting for the key Hill 660. The tough jungle campaign earned the grim nickname "the Green Inferno".



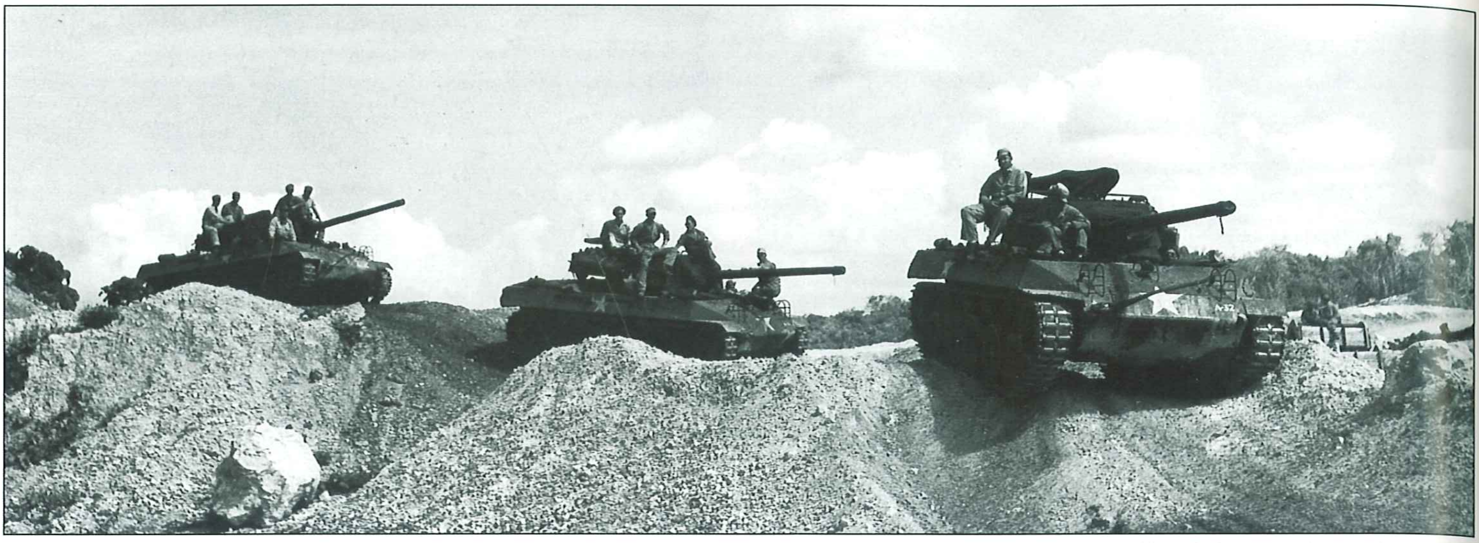
The first use of the M10 3in. GMC took place with the 767th Tank Battalion on Kwajelin in February 1944. The tank battalion had an improvised organization for the operation, including one platoon of tank destroyer intended to assist in blasting palm-tree log bunkers which had proven impervious to the 75mm gun on the M4 medium tanks in previous fighting. Here, a M10 is at work at point blank range against a Japanese bunker on 4 February 1944 while supporting the 7th Division.



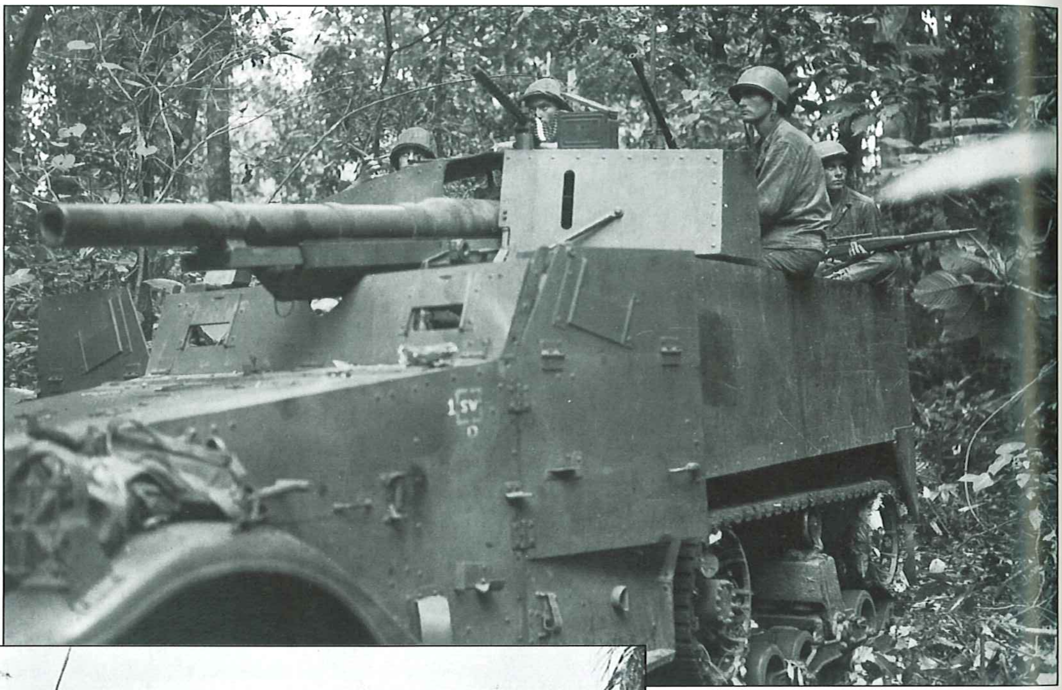
The crews of a pair of M10 3in. GMCs confer with officers of the 7th Division on Kwajelin island while awaiting instructions for further bunker-busting operations on the atoll. The palm trees have been stripped of much of their foliage by the pre-invasion bombardment.



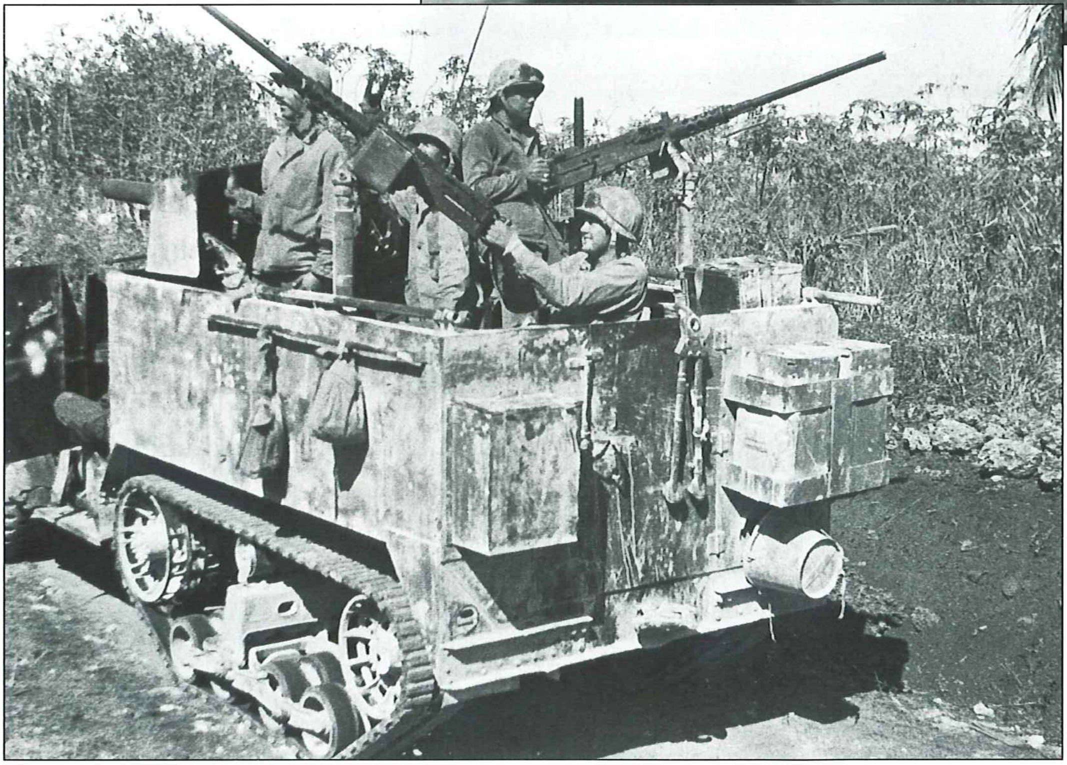
A platoon of M10 3in. GMCs of Co. A, 632nd Tank Destroyer Battalion patrol a beach on Aitape, New Guinea while supporting the 32nd Division in 1944.



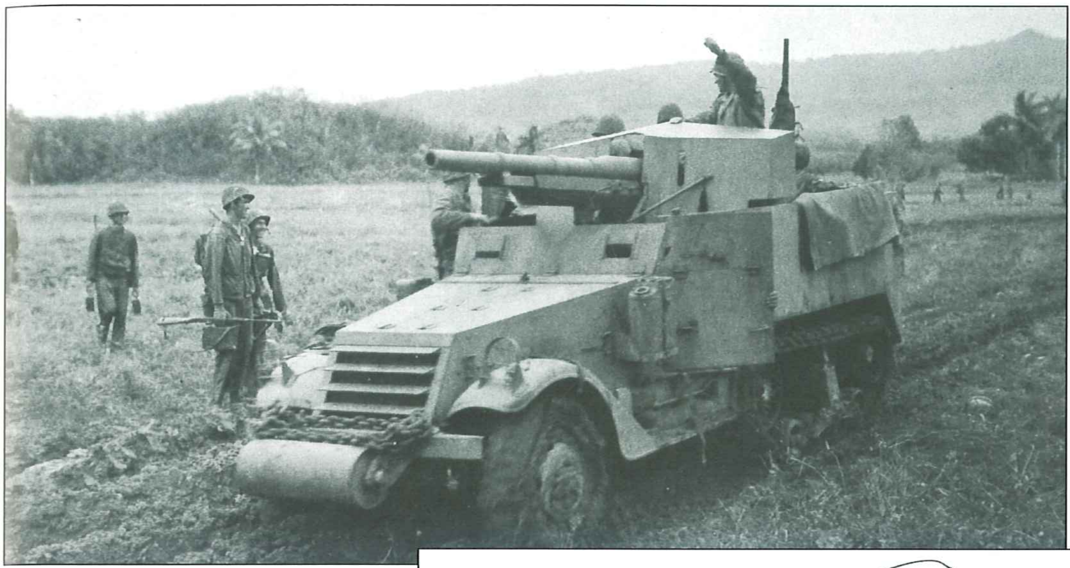
A platoon of M18 Hellcats of Co. A, 637th Tank Destroyer Battalion undergo training on Espiritu Santo in the New Hebrides chain on 22 August 1944.



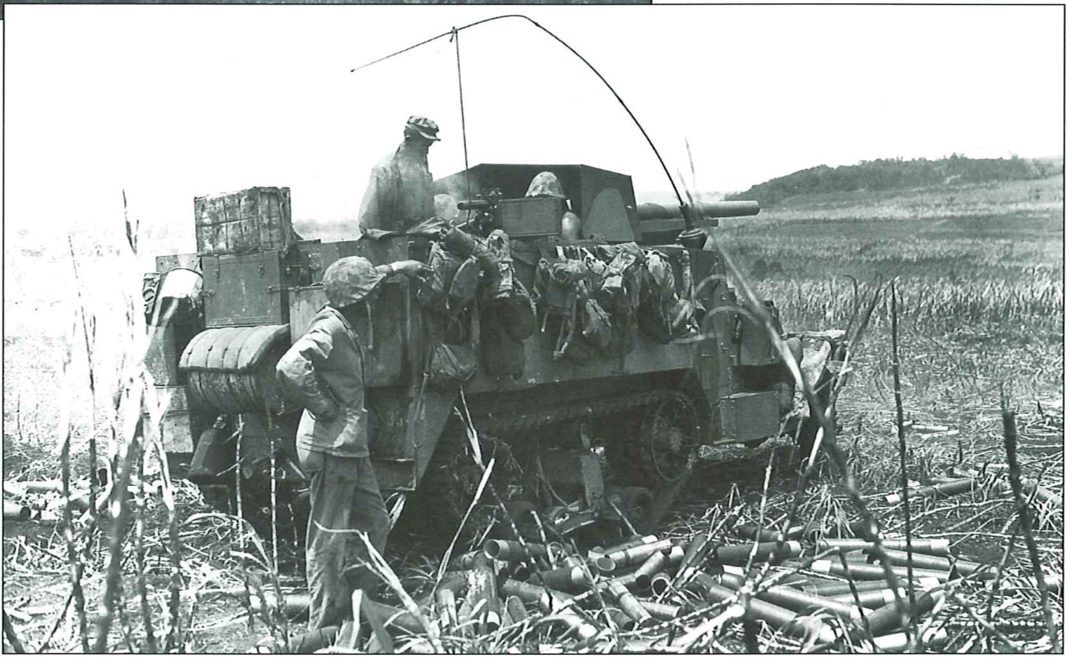
A SPM probably of the 5th Special Weapons Company on Cape Gloucester in early 1944. A simple pintle mount for a .30 cal. machine gun has been added to the top of the gun shield of the vehicle. Added machine guns were a common feature on SPMs in the Pacific as Japanese infantry was the most frequent opponent, not Japanese armored vehicles.



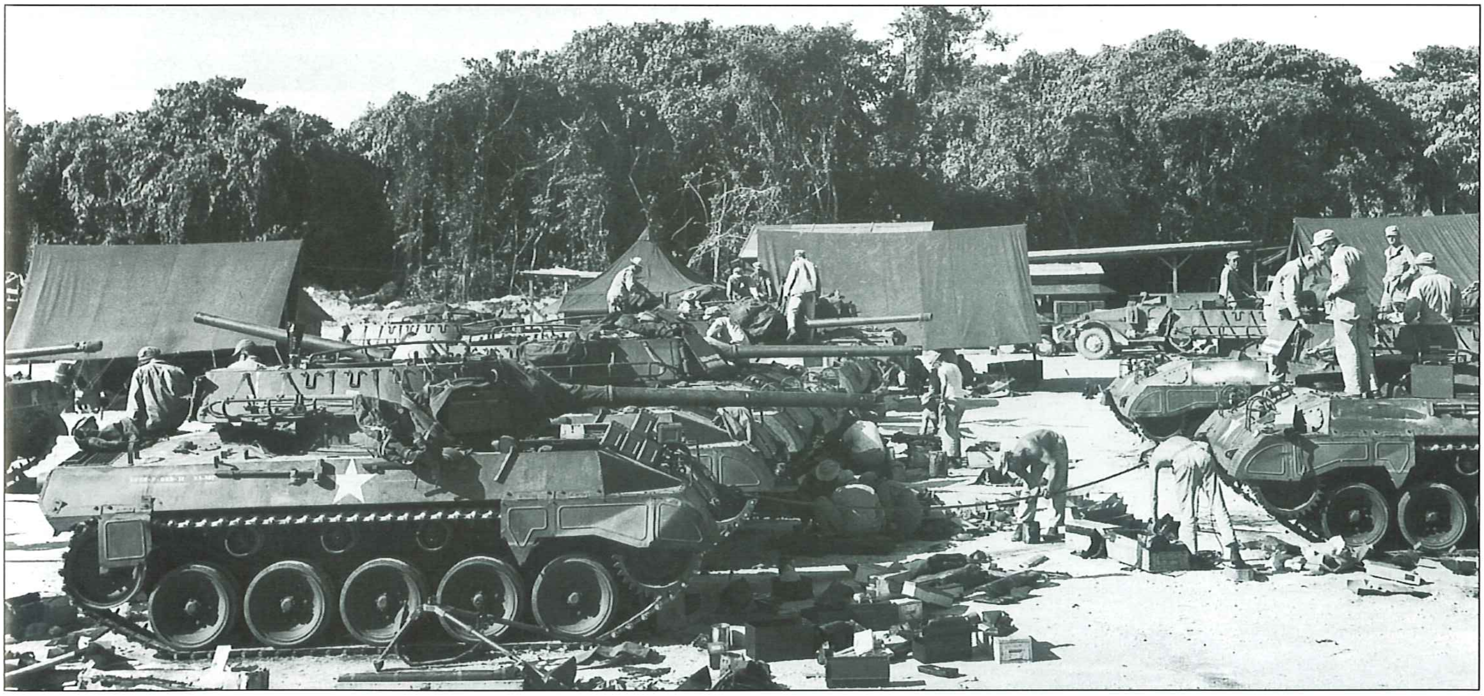
Another example of a well armed Marine SPM, this time the 4th Special Weapons Company on Saipan in June 1944. This unit has added two heavy pintles for .50 cal. heavy machine guns on either side, two smaller pintles for .30 cal. machine guns forward of these, and a third .30 cal. pintle over the gun shield.



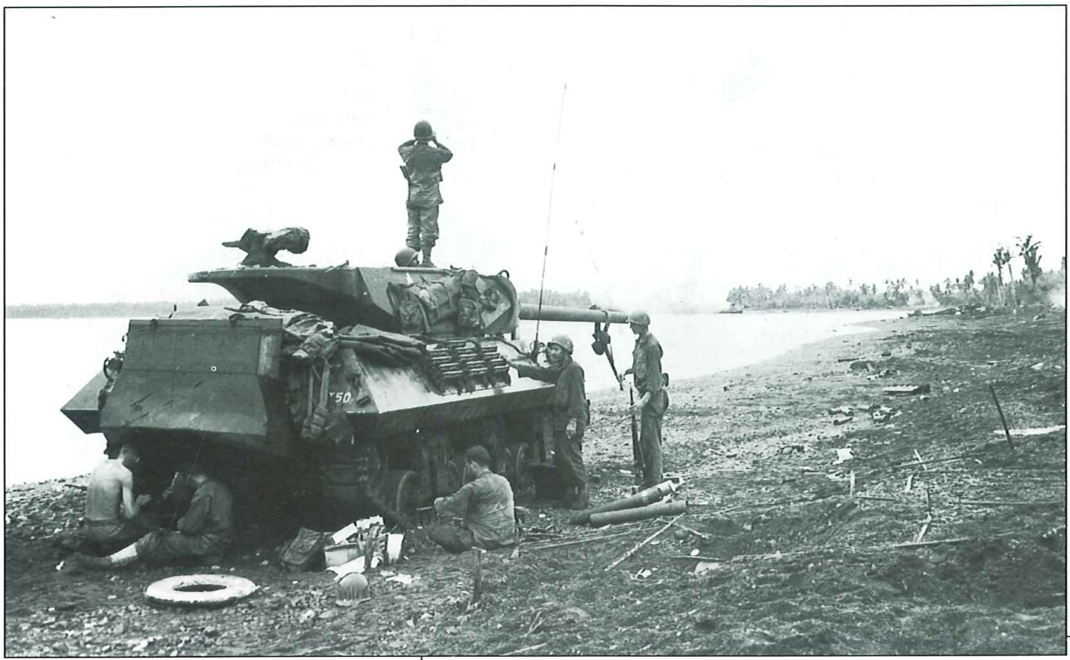
Marines confer with a SPM during the fighting on Saipan in June 1944. Saipan was the first Pacific battle since the 1941 Philippines campaign that saw the extensive use of Japanese tanks, and SPMs were involved in several of these encounters.



A SPM of the 2nd Special Weapons Company providing direct fire for Marine units on Tinian on 30 July 1944. The ground near the vehicle is littered with packing tubes and expended brass shell casings. The camouflage scheme on the SPM is probably earth yellow over olive drab.

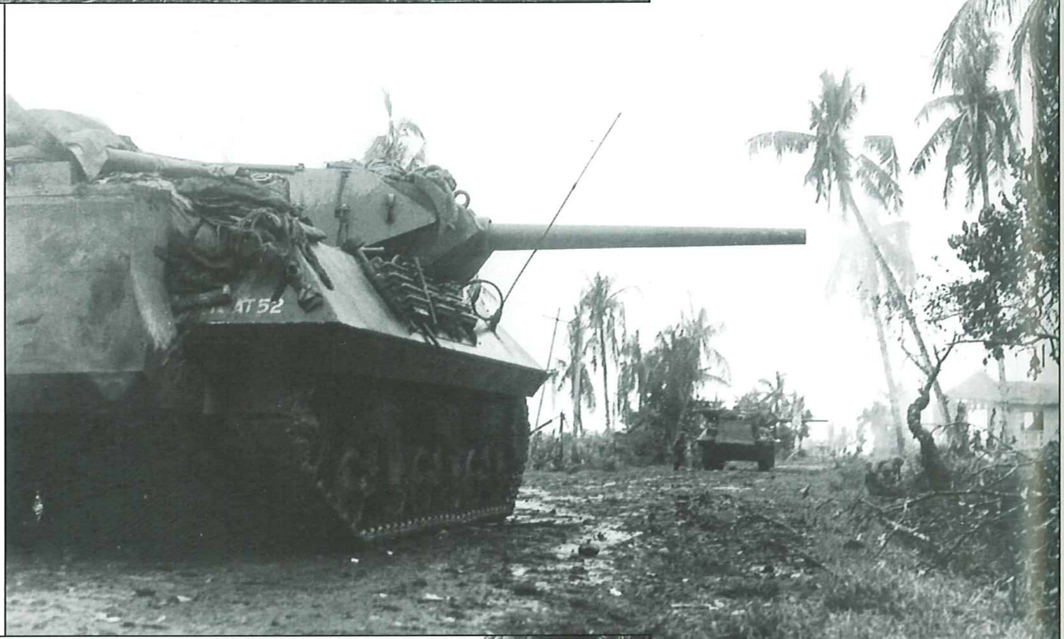


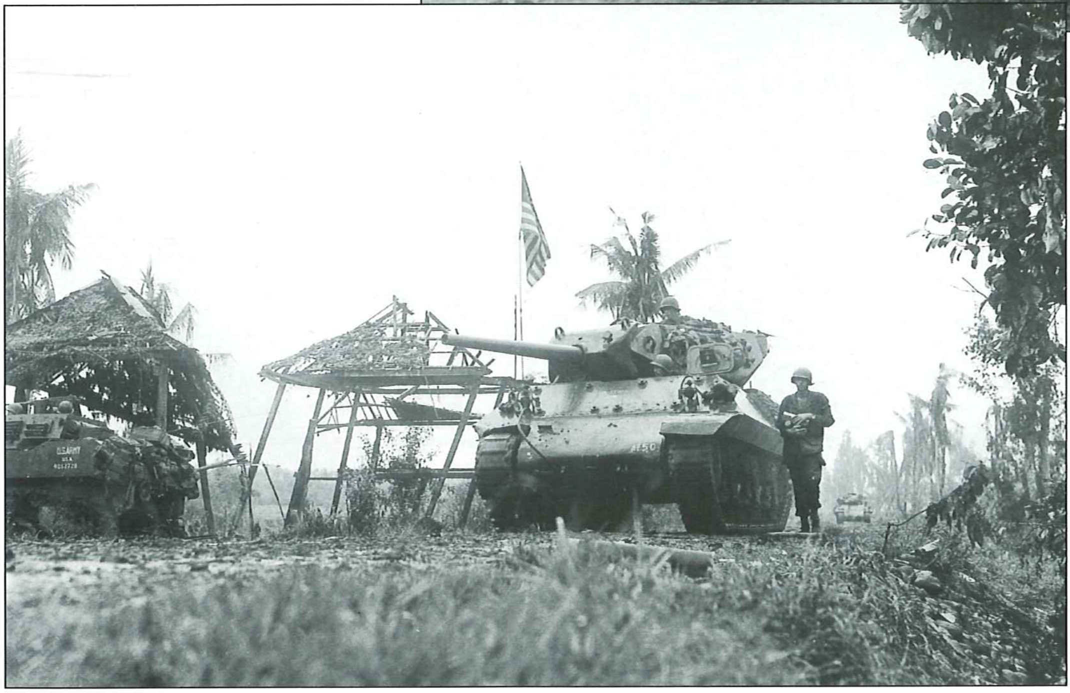
A company of M18 Hellcats of Co. A, 637th Tank Destroyer Battalion undergo maintenance on Espiritu Santo in the New Hebrides chain on 4 August 1944. This was the first battalion in the Pacific to receive the new vehicles, and they are still fitted with the full fender dust guards.



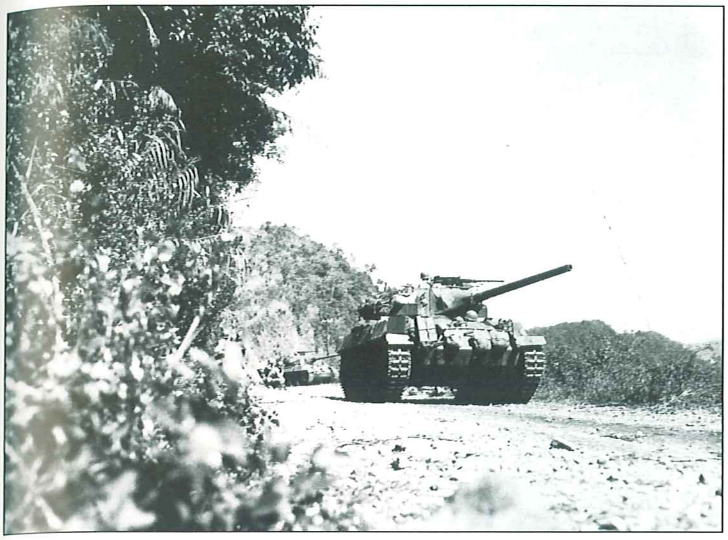
A M10 3in. GMC of the 632nd Tank Destroyer Battalion does maintenance of their vehicle at Ormoc bay on Leyte in the Philippines on 16 December 1944. This is a late production vehicle with the duck-bill turret counterweights. A wading trunk is fitted on the rear which provided air supply to the vehicle engine when coming ashore through deep water from landing vessels during the initial invasion.

A pair of M10 3in. GMC of the 632nd Tank Destroyer Battalion move to the northwest of Leyte island in support of the 77th Division during fighting there in early 1945.

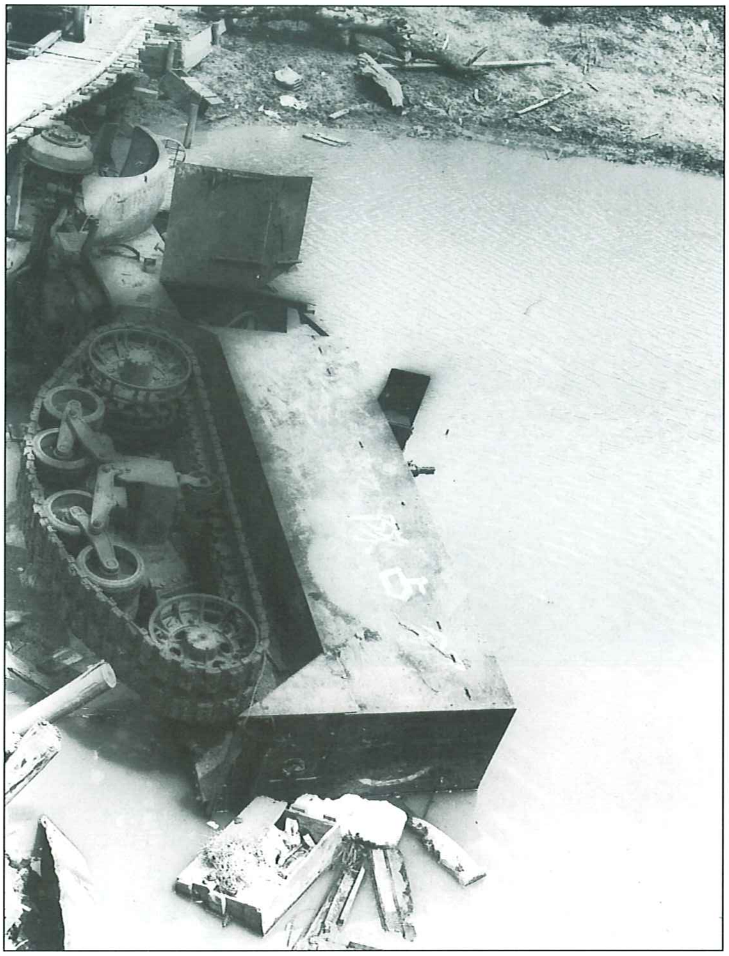




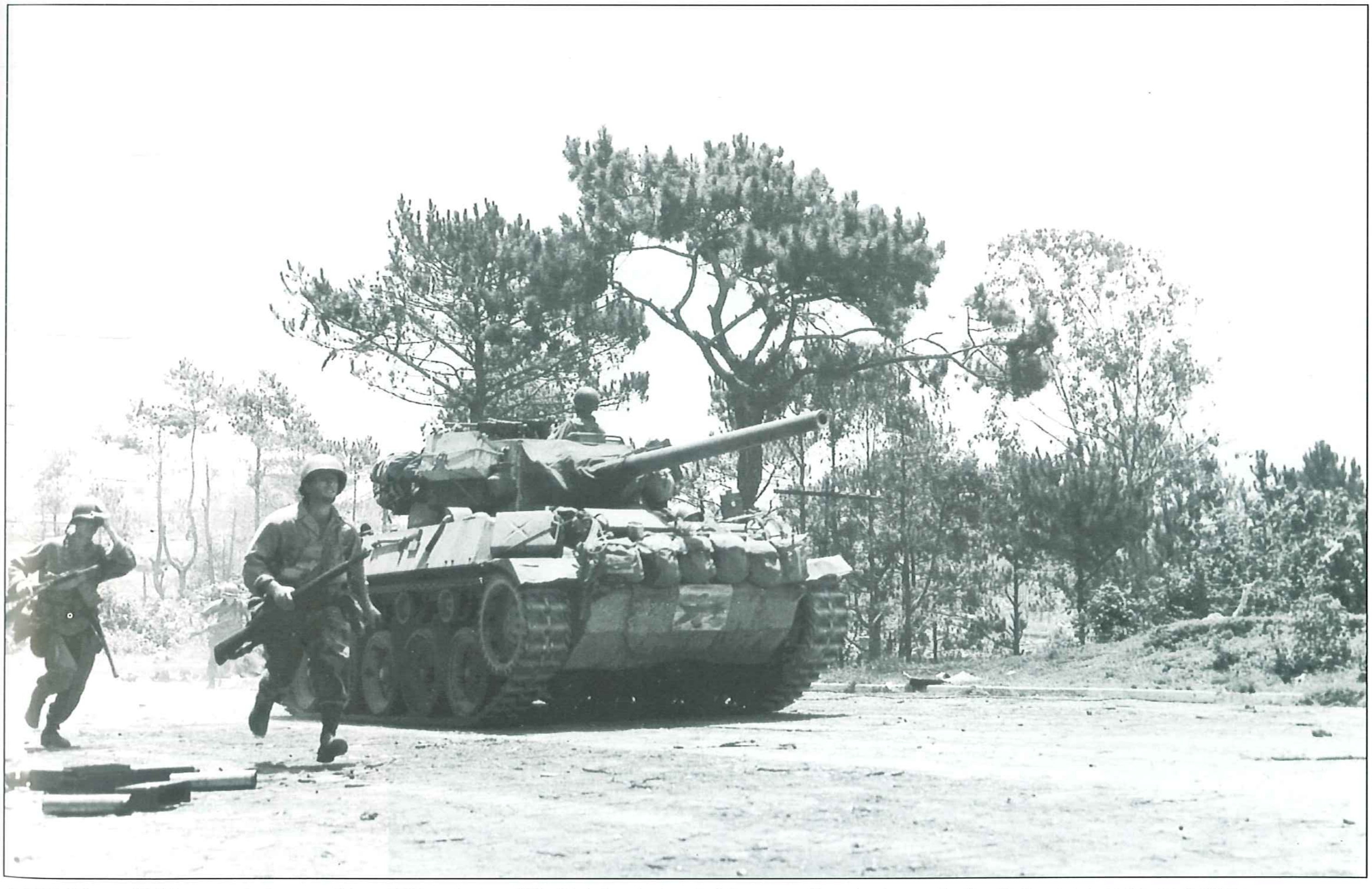
A M10 3in. GMC of the 632nd Tank Destroyer Battalion carrying a large American flag moves forward in Leyte, the Philippines in January 1945. This is a later production vehicle with the duck-bill turret counter balance, evident from the shape of the turret rear.



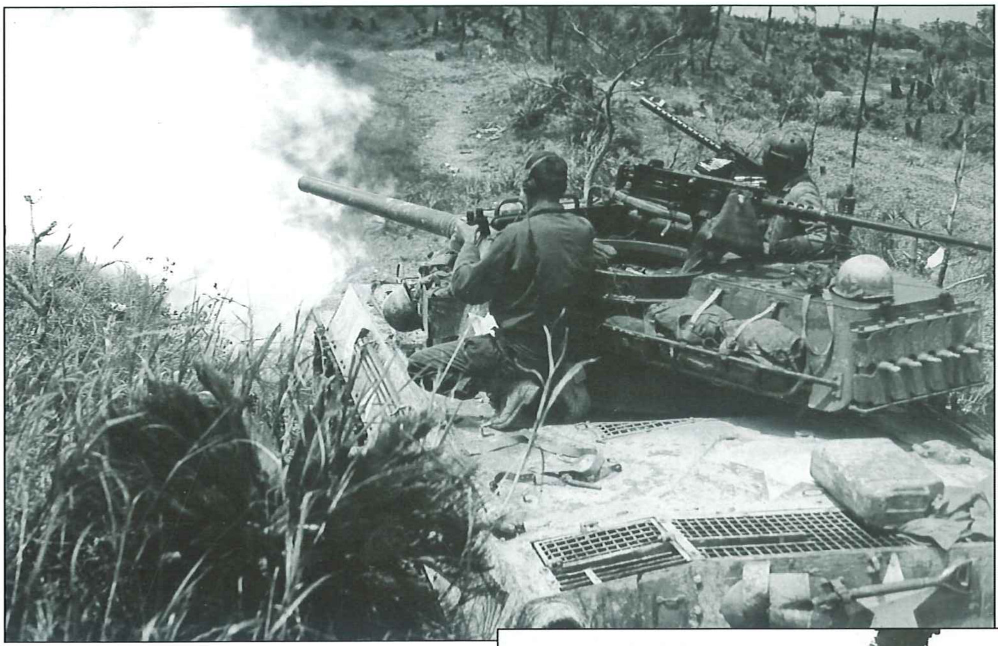
A M18 76mm GMC supports US troops of the 37th Division in the Philippines on Luzon in April 1945. The Philippines campaign marked the combat debut of the M18 Hellcat in the Pacific.



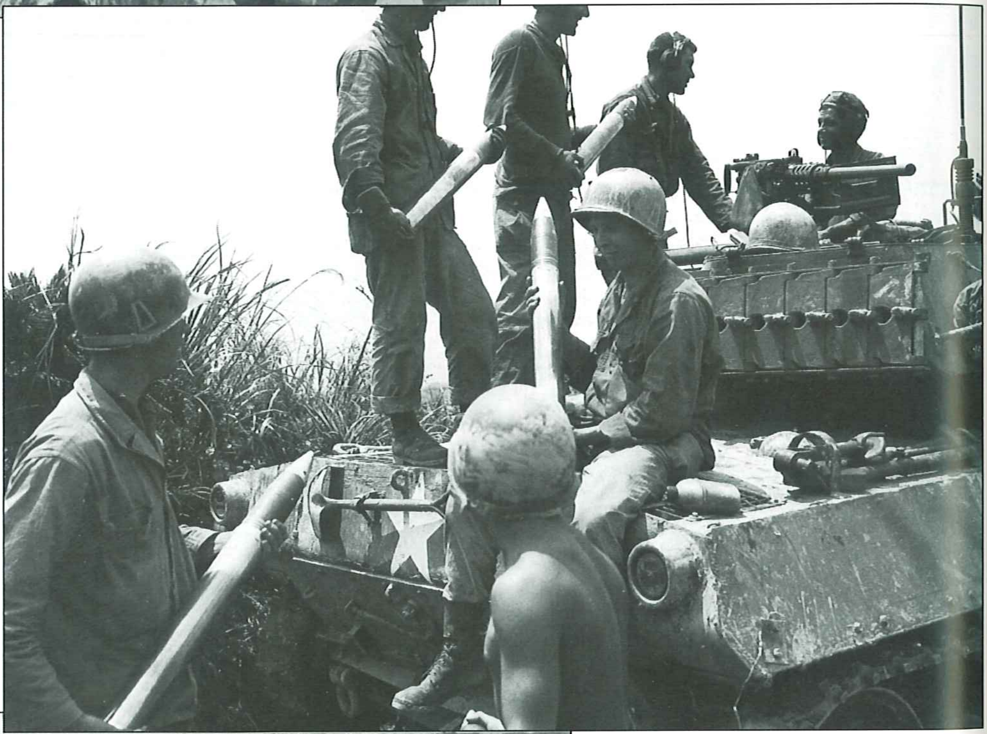
This odd photo provides evidence the T12 75mm GMCs were in operation with Japanese units until 1945. Captured during the 1941-42 campaign, several T12 75mm GMCs were refurbished and used for occupation duties. This T12 fell off a bridge on Luzon in 1944 where it was photographed by US troops. There are Japanese inscriptions on the hull side, the gun shield for the 75mm gun is evident.



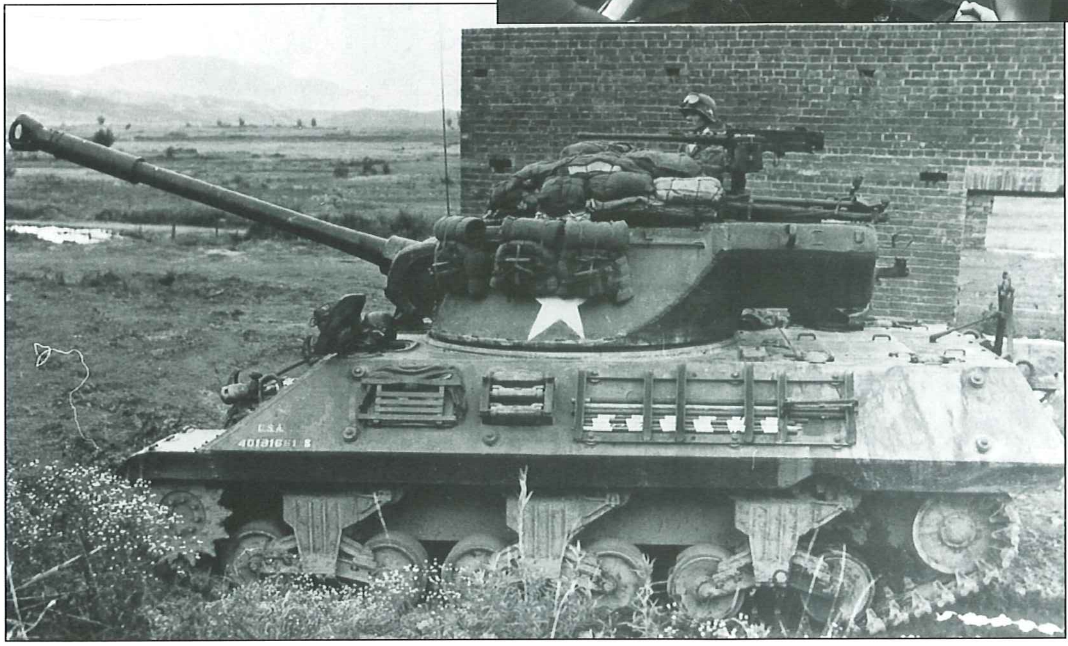
A M18 76mm GMC supports troops of the 129th Infantry, 37th Division during fighting near Baguio, Luzon in the Philippines on 24 April 1945.



The final campaign for the tank destroyers in World War 2 was the Okinawa campaign. In this dramatic shot, a M18 76mm GMC of the 306th Anti-Tank Company of the 77th Division fires against Japanese positions near Shuri on Okinawa on 11 May 1945.

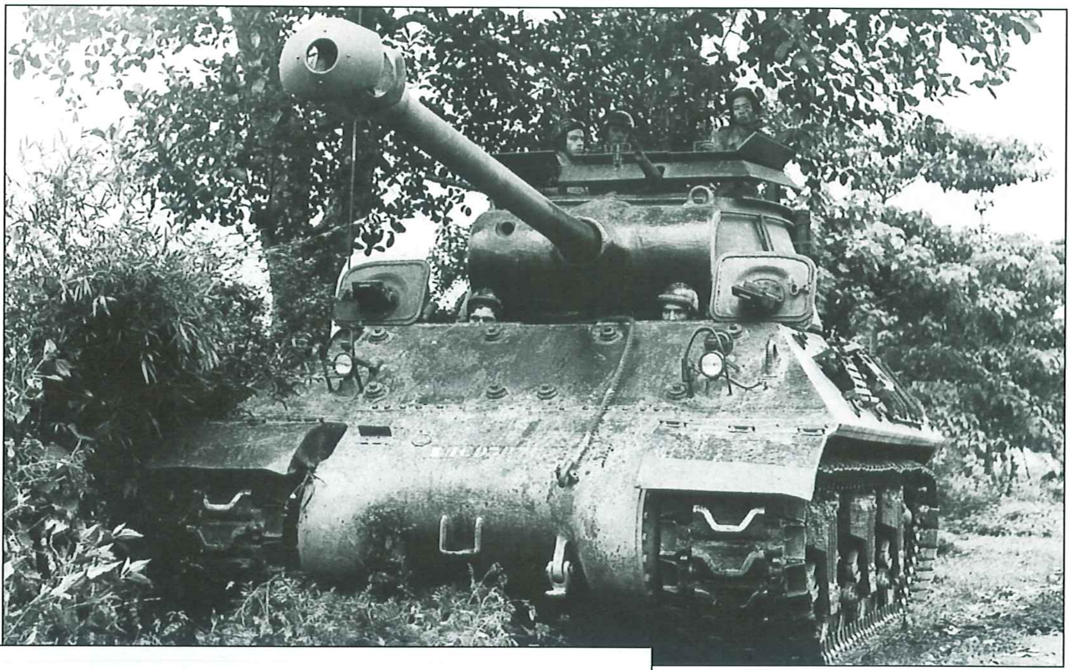


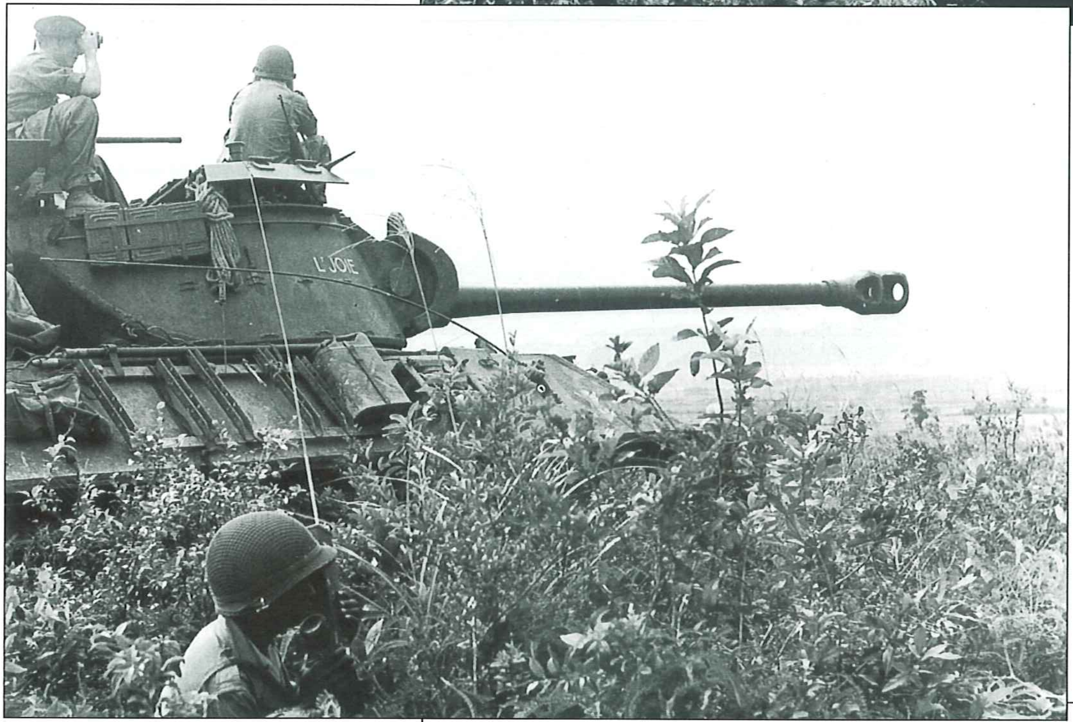
The crew of a M18 Hellcat of the 306th Anti-Tank Company of the 77th Division receives help from the infantry in reloading ammunition into the vehicle on 11 May 1945 on Okinawa.



During the Korean War, surplus M36B2 tank destroyers were provided to the South Korean Army to help form their first tank units. These vehicles differed from the wartime example in that they had an improved 90mm gun with a fume extractor and muzzle brake, and were also fitted with overhead armor.

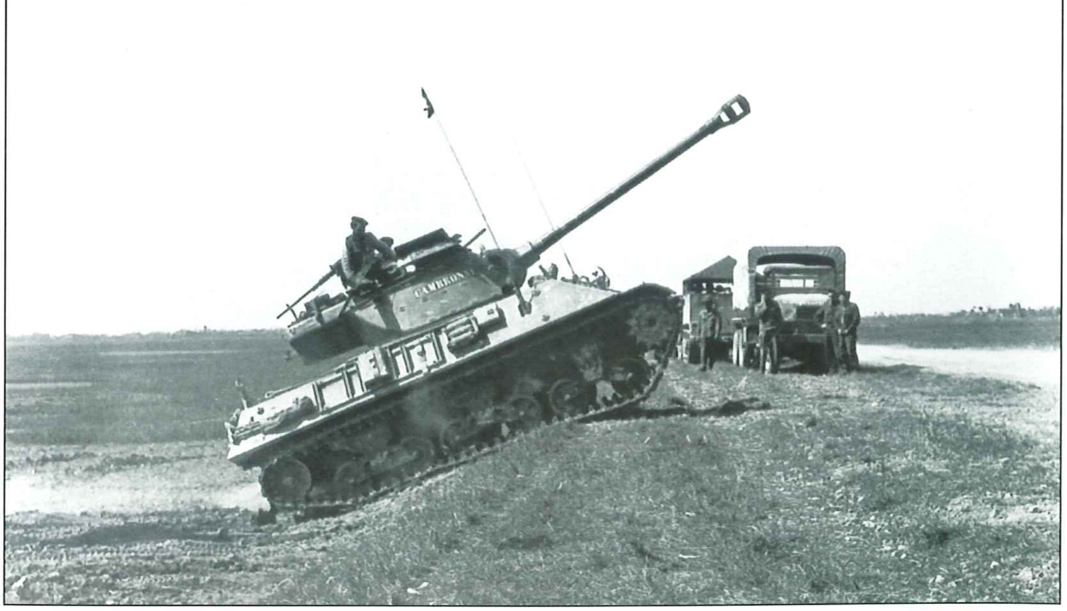
In November 1950, the French Army deployed the *Regiment Blinde Colonial d'Extreme Orient* (RBCEO) to Indochina to take part in the war against the Vietminh guerrillas. The regiment was equipped with M36B2 tank destroyers, characterized by the armored covers over the turret. Note that the crew wears French World War 2 mechanized forces helmets. (National Archives)

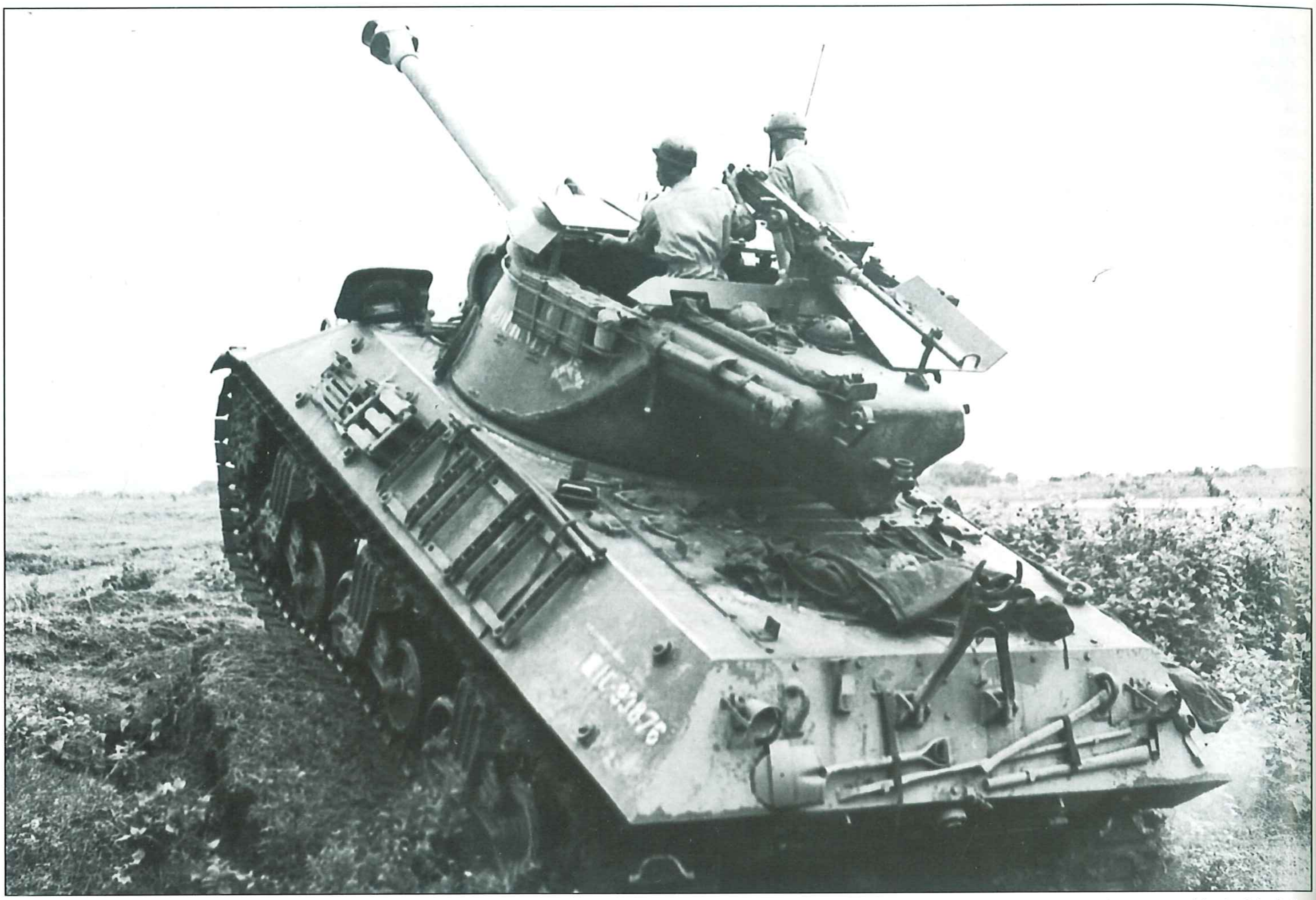




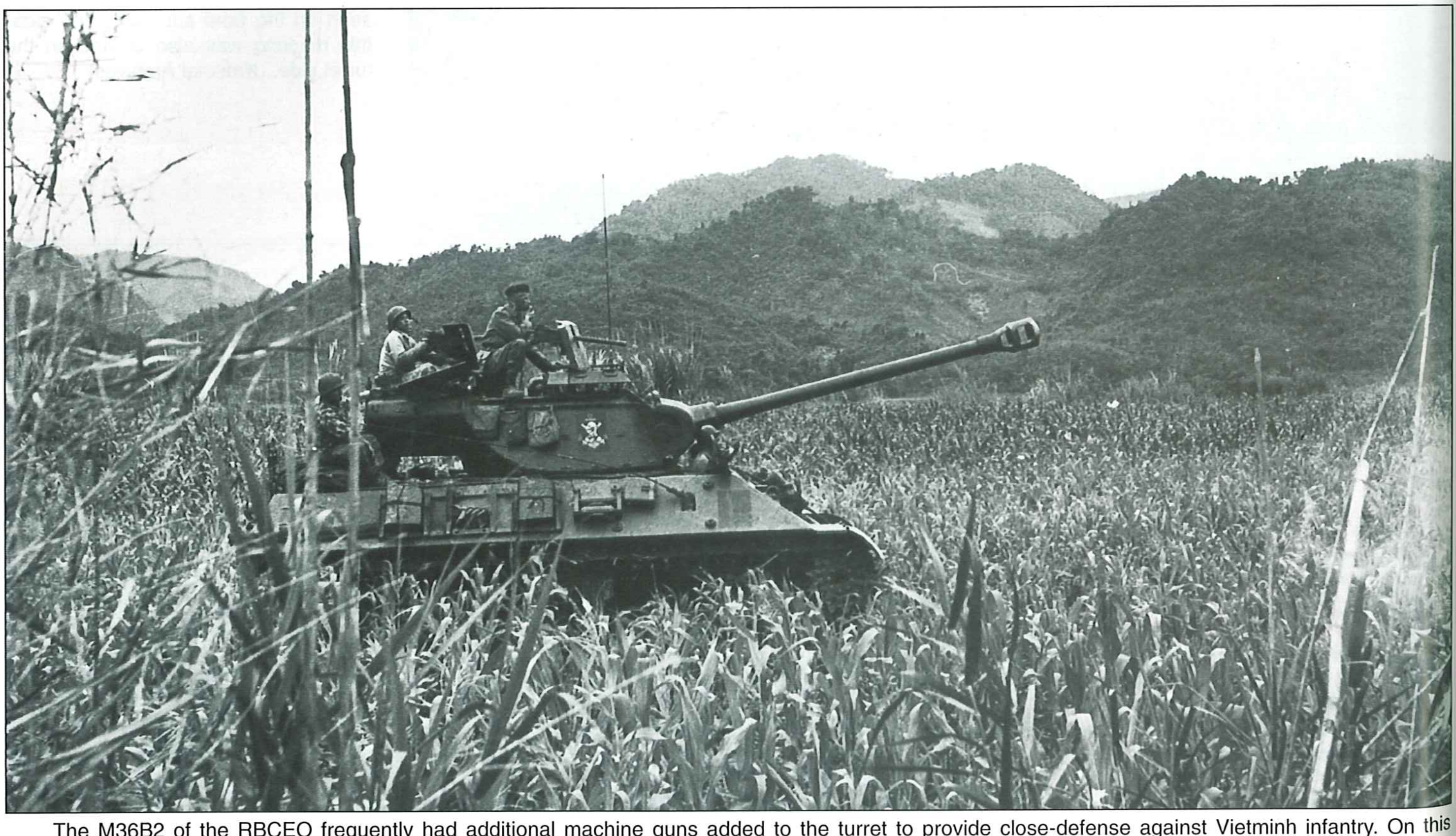
The reason for deploying the RBCEO to Indochina was fear that China would intervene in northern Vietnam with heavy tanks such as the IS-2 Stalin. The 90mm gun on the M36B2 was intended as a counterweight to any intervention. This RBCEO M36B2 is named "L'Joie". The RBCEO insignia, a knight's helmet with crossed artillery barrels, can barely be seen on the front superstructure side- this marking was also carried on the turret side. (National Archives)

Although intended to provide a measure of anti-tank defense, the absence of armored vehicles in Vietminh hands meant that the RBCEO was used mainly to provide fire support for French Army units during the Indochina fighting. This vehicles is named "Cambronne". (National Archives)



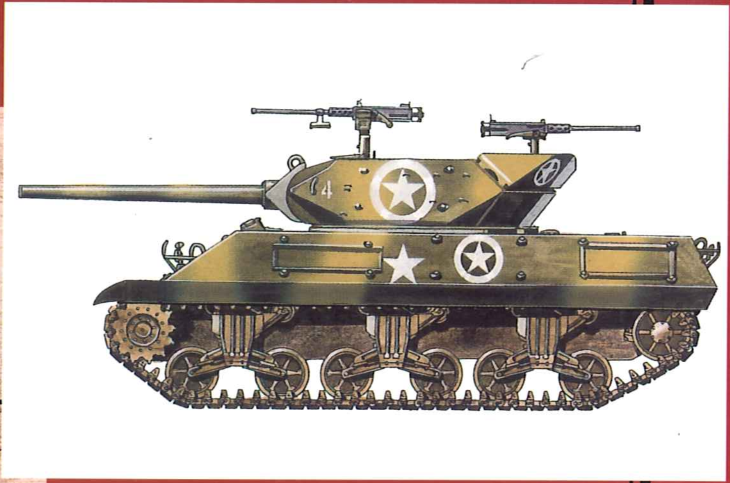


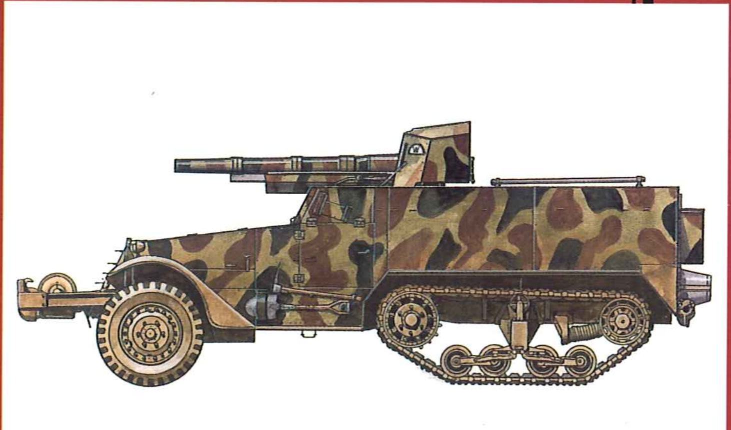
A M36B2 of the RBCEO during operations in Tonkin during the Indochina War. This vehicle carries the RBCEO insignia on the turret side behind the name, though obscured in this view by turret stowage. The French military serial number evident on the hull side is preceded by IC for Indochina. (National Archives)



The M36B2 of the RBCEO frequently had additional machine guns added to the turret to provide close-defense against Vietminh infantry. On this particular vehicle, the RBCEO insignia is particularly clear. (National Archives).

U. S. TANK DESTROYERS IN COMBAT 1941-1945





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